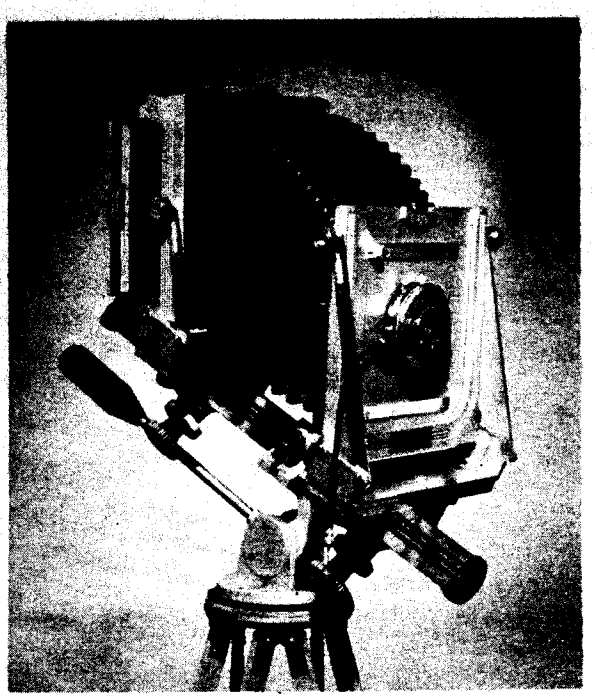
GRAPHIC VIEW I & II



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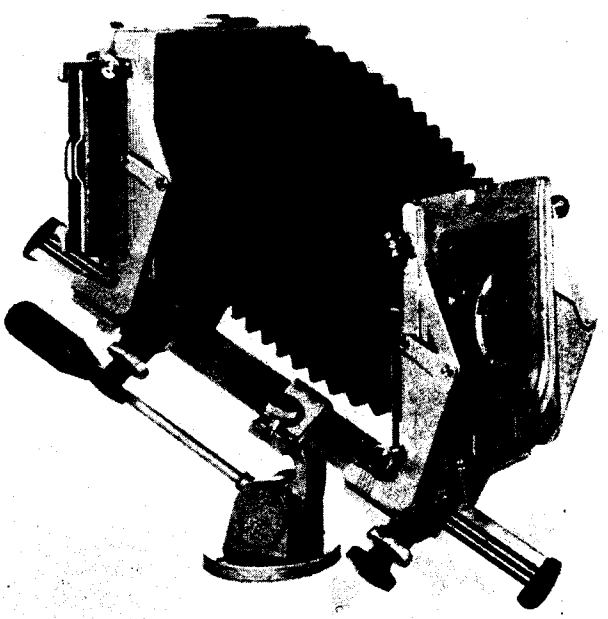

GRAFLEX, INC.
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GRAPHIC VIEW I & II

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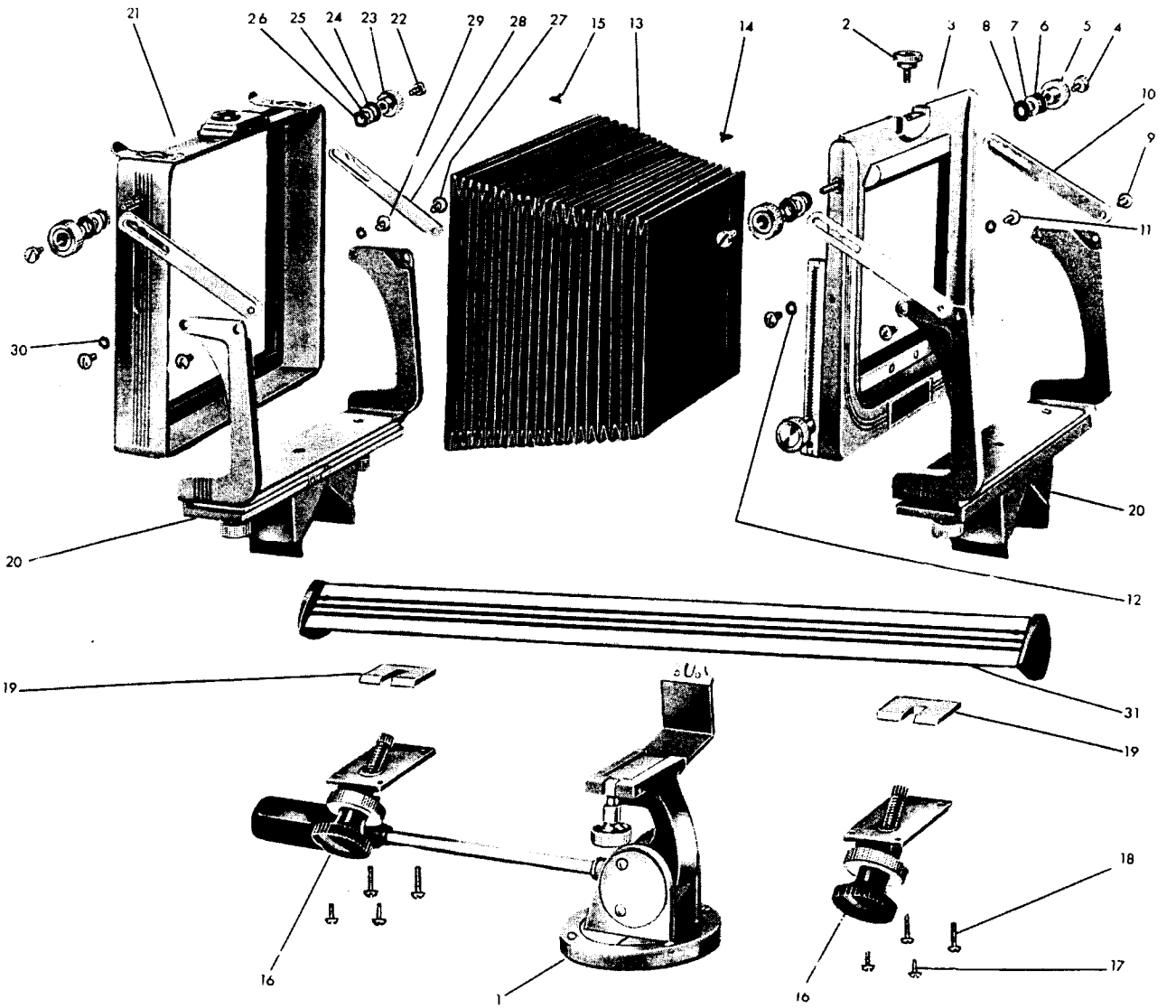


Figure 1. 4x5 Graphic View Camera

1. INTRODUCTION

This section of the Service Parts Manual covers the Graphic View, Model I and II. The text and illustrations cover disassembly, cleaning, reassembly, conversion, troubles and lubrication. The Graphic View II is illustrated since the two cameras are similiar in construction and service; however, the differences are described in the text and parts list. The parts list indexes to these illustrations. Always refer to parts by the part number and name. . . never by the index number in correspondence and orders.

2. INSPECTION AND TROUBLES

Many of the troubles encountered by the repairman will be very obvious, while others will not be too apparent. Before disassembly, check for loose or missing screws or parts that are binding due to lack of lubrication or misalignment of parts.

Inspect the camera as follows:

A. The bellows frame must be tight to the front and back castings.

B. The shift lock spring (5-1) that indicates center position on the front and back carriage lateral shift and horizontal swing should be strong enough to indicate correct centering position.

C. The focusing shaft knob (4-7) should turn smoothly and not bind during its rotation.

D. Look for loose screws on tripod head, back springs, focusing lock, front and back pivot, and lock knobs.

E. Check the rising front. Be sure it locks when the shaft is moved to the left. With the rising front pinion to the left, as in the unlocked position, there should be 1/32 inch space between the right (locking) knob and front casting and 3/16 inch space between the left knob and front casting.

F. Check the bellows for pin holes by extending the bellows and inserting a light. Check corner folds where cracks are most likely to occur.

G. If the bed rack has shifted, adjust so that the

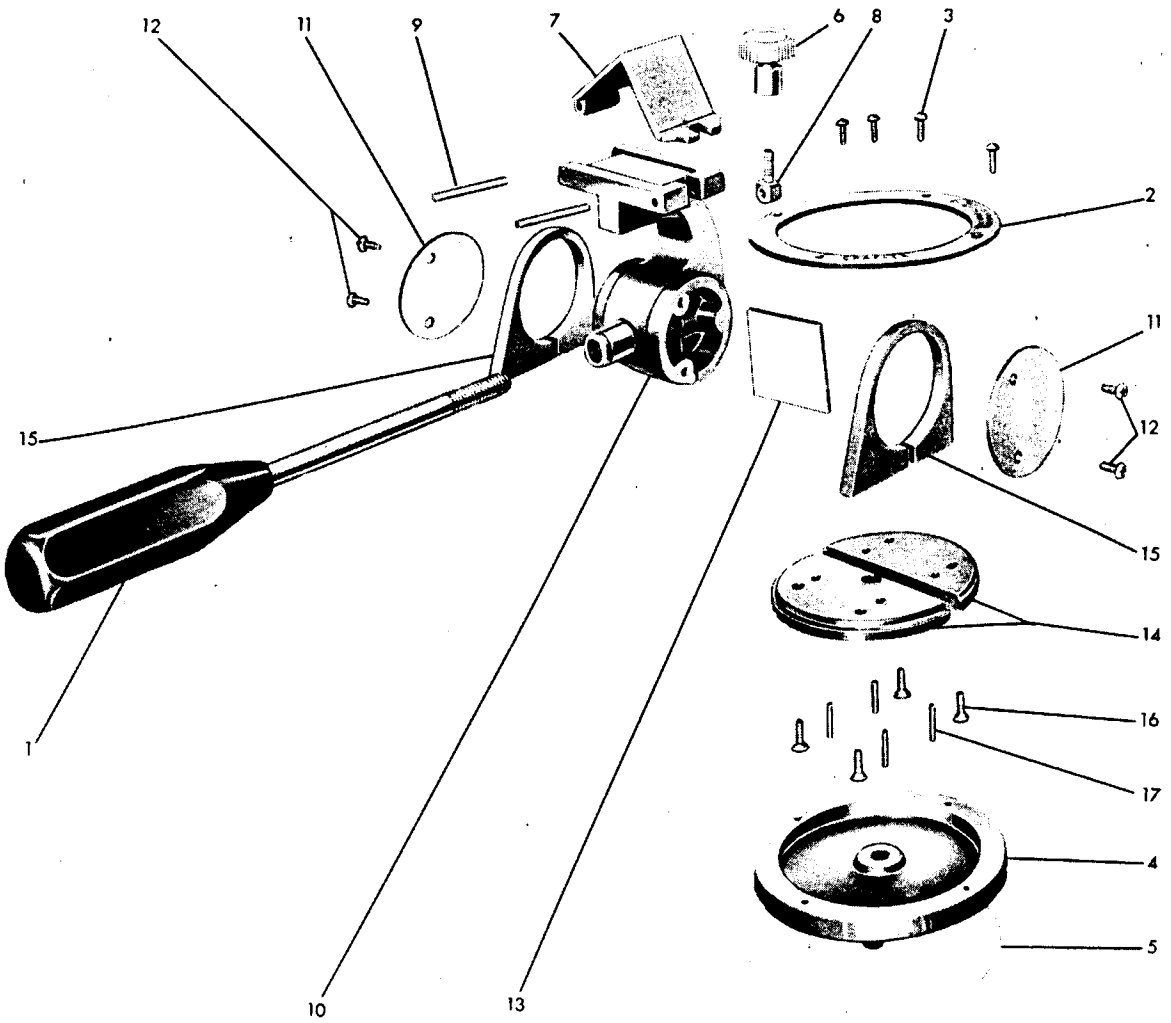


Figure 2. Tripod Head

top of the teeth have 0.385 inches clearance and tighten the screws. Refer to paragraph 16.C.

H. Camera back. Inspect for worn velvet that may cause loose hold or fit and allow light leaks. Brush velvet with a moderately stiff brush to remove dust and rejuvenate the velvet pile. If this is not satisfactory, replace the velvet.

3. CAMERA DISASSEMBLY - BASIC

A. If necessary, remove bellows (1-13) by removing twelve screws (1-14) from the front standard (1-3) and twelve screws (1-15) holding bellows to the back frame (1-21).

B. Remove support arm locking knobs (1-5), spring washer (1-6), and flat washers (1-7 and 1-8) by removing screw (1-4).

Caution: Screw (1-4) has left hand threads and must be turned to the right to remove.

C. Remove yoke arm (1-10) by removing screw (1-9).

D. Remove front standard (1-3) from front yoke (1-20) by removing screw (1-11) and washer (1-12).

E. If necessary, remove lens hood clamp screw (1-2) from front standard (1-3).

F. Remove focusing lock assembly (1-16), focusing clamp wedge (1-19) and front carriage assembly (1-20) by removing two screws (1-17) and two screws (1-18).

G. Remove rear support arm locking knobs (1-23), spring washer (1-24) and flat washers (1-25 and 1-26) by removing screw (1-22).

Caution: Screw (2-22) has left hand threads and must be turned to the right to remove.

H. Remove yoke arm (1-28) by removing screw (1-27).

I. Remove back frame (1-21) from rear carriage assembly (1-20) by removing screws (1-29) and washer (1-30).

J. If necessary, remove rear carriage assembly in the same manner as the front carriage assembly.

K. Remove bed (1-31) from pan tilt tripod head (1-1).

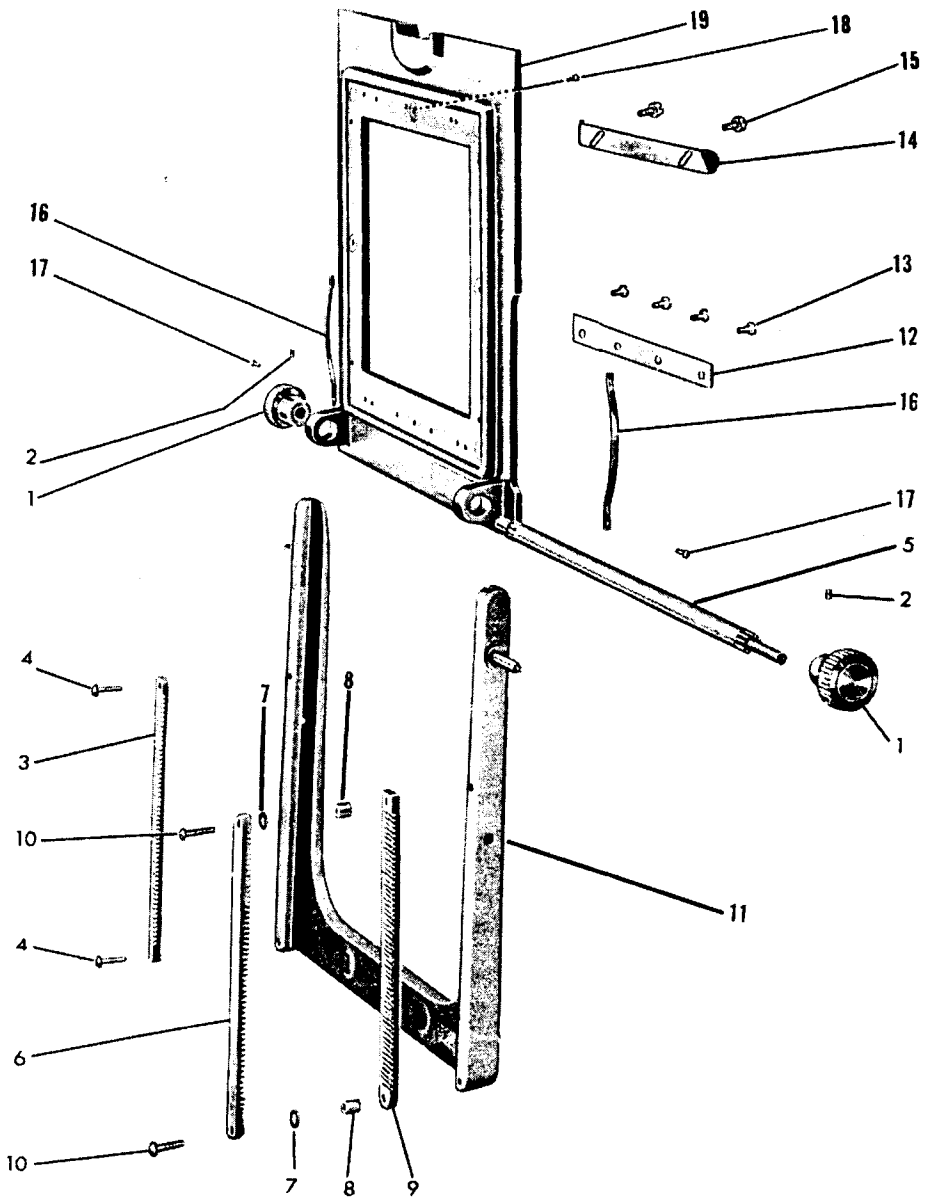


Figure 3. Front Standard Complete - Graphic View II

4. TRIPOD HEAD DISASSEMBLY

A. Remove handle (2-1) from support assembly (2-10).

B. Remove cover (2-2) and support assembly (2-10) from base (2-4) by removing four screws (2-3).

C. If necessary, remove base pad (2-5) from base (2-4).

D. Remove end plates (2-11) from support assembly (2-10) by removing two screws (2-12).

E. Remove clamp lock plate (2-13) from support assembly (2-10).

F. Remove four screws (2-16) and carefully remove barrel support plates (2-15) from rotating plate (2-14).

Caution: Care should be taken to evenly lift the barrel supports so that the dowel holes will not be damaged.

G. If necessary, remove dowel pins (2-17).

H. Remove clamp hinge lock knob (2-6) from clamp hinge lock screw (2-8).

I. If necessary, remove clamp hinge lock screw (2-8) from support assembly (2-10) by removing dowel pin (2-9).

J. If necessary, remove clamp hinge (2-7) from support assembly (2-10) by removing dowel pin (2-9).

5. FRONT STANDARD DISASSEMBLY

A. Remove pinion shaft knob (3-1) from pinion shaft (3-5) by removing pinion shaft knob set screw (3-2).

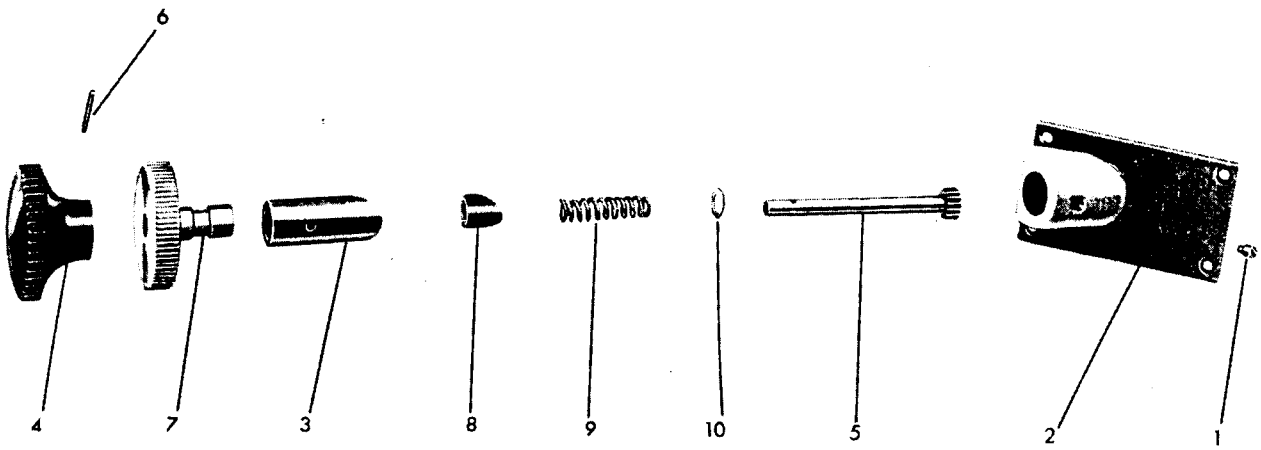


Figure 4. Focusing Lock Assembly

B. Remove locking rack (3-6), washer (3-7), spacer (3-8) and rack (3-9) by removing two screws (3-10).

C. Remove rack (3-3) from front standard assembly-first (3-11) by removing two screws (3-4).

D. Remove front standard plate (3-19) from front standard assembly-first (3-11).

E. Remove lensboard slide lock (3-14) by removing two screws (3-15).

F. Remove lensboard retaining plate (3-12) by removing four screws (3-13).

G. Remove two tension springs (3-16) by removing pins (3-17).

H. If necessary, remove slide lock centering pin (3-18) from front standard plate (3-19).

6. FOCUSING LOCK DISASSEMBLY

A. Remove focusing shaft dowel screw (4-1) and then remove lock assembly from cover plate (4-2).

B. Remove groove pin (4-6) from focusing shaft knob (4-4).

C. Disassemble focusing shaft lock knob (4-7), focusing lock bushing (4-3), focusing lock clamp (4-8), spring (4-9) and washer (4-10) from focusing shaft (4-5).

7. CARRIAGE DISASSEMBLY

A. Remove lock knobs (5-4) and washers (5-6) by removing screw (5-5).

Caution: Screw (5-5) has left hand threads and must be turned right to be removed.

B. Remove shift clamp plate assembly (5-7), yoke (5-9), pivot plate assembly (5-8) from base (5-13).

C. If necessary, remove swing spring (5-10) from yoke (5-9) by removing screw (5-11).

D. If necessary, remove shift lock spring (5-1), shift lock spring shim (5-3) from base (5-13) by removing two screws (5-2).

E. If necessary, remove focusing clamp wedge shim (5-12) from base (5-13).

8. BACK FRAME DISASSEMBLY

A. Remove spirit level mount (6-1), spirit level (6-2) and spirit level spring (6-3) by removing two screws (6-4) from back (6-9).

B. Remove upper spring clip (6-5) from back frame (6-9) by removing two screws (6-6).

C. Remove lower spring clip (6-7) from back frame (6-9) by removing two screws (6-8).

9. BED DISASSEMBLY

A. Remove rack (7-1) from bed (7-5) by removing six screws (7-2).

B. If necessary, remove bed end (7-3) from bed (7-5) by removing two screws (7-4).

10. LENSHOOD DISASSEMBLY

A. Remove hinge (8-5), hinge pin (8-4), hinge pin knob (8-3), hinge pin spring (8-2) by removing hinge pin screw (8-1) from lenshood (8-6).

11. CLEANING OF CAMERA PARTS

After disassembly, thoroughly clean all camera parts using trichlorethylene to remove all old lubricants and toluol to remove old EC-880 cement.

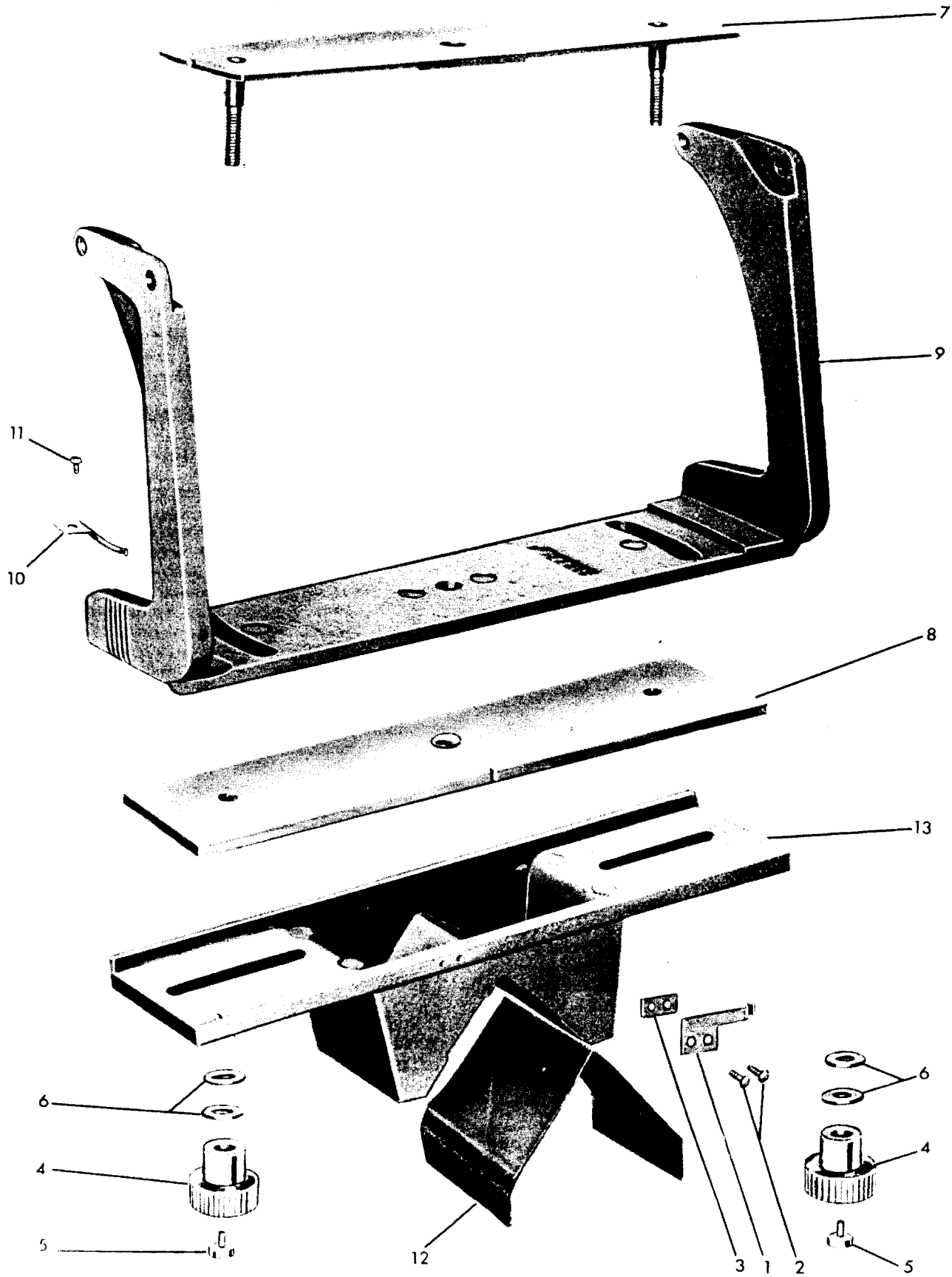


Figure 5. Carriage Assembly - Graphic View II

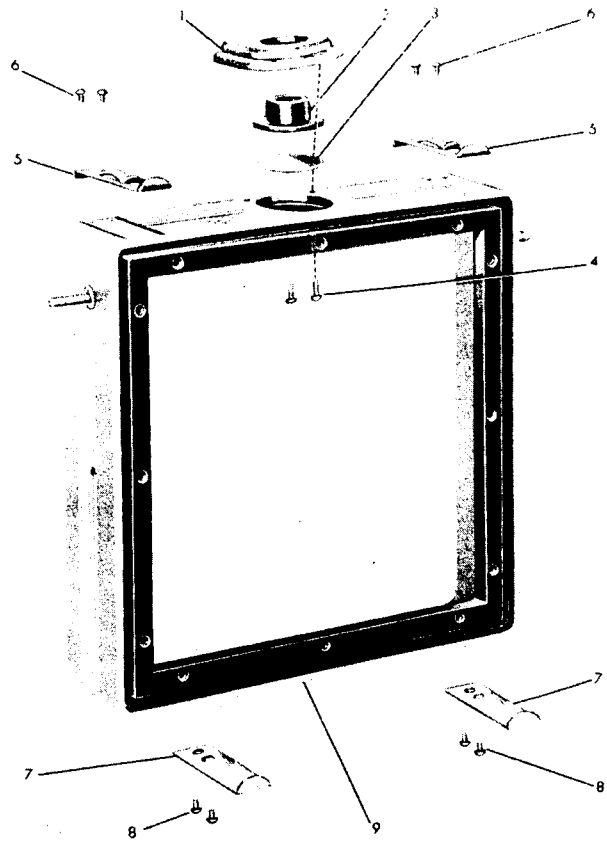


Figure 6. Back Assembly

12. GRAPHIC BACK DISASSEMBLY - (4x5) and (4x5-3-1/4x4-1/4)

A. Remove the back from the camera by raising the ends of the upper spring clips (6-5) and lifting the back from the lower spring clips (6-7).

B. Remove the lock pin plate from the back by removing the lock plate screws.

Note: Modifying older backs to use the lock pin plates is described in paragraph 24.L.

C. Remove the focusing frame assembly by removing the top and bottom center panel spring screws and washer.

D. To remove the top and bottom panel spring assemblies, remove the four panel spring-end screws.

E. On newer model backs, remove the focusing hood assembly by pressing outward on the tab of the focusing screen retainer.

Note: The focusing hood assembly is assembled with staked hinge pins. It should not be disassembled, but replaced as a unit so that trouble-free operation may be maintained.

F. Remove the focusing screen by unscrewing the retainer screws and removing the focusing screen retainers.

G. On older model backs, remove the liner and panel door assembly by gently prying the liner from the focusing frame.

H. If it is necessary to disassemble the old style liner and panel door, drive out the hinge pins, being careful not to lose the two panel door springs.

13. GRAFLEX BACK DISASSEMBLY (4x5) and (4x5 - 3-1/4x4-1/4)

A. Remove the back from the camera as described in paragraph 12.A.

B. Remove the lock pin plates from the back by removing the lock plate screws.

Note: Modifying older backs to use the lock plates is described in paragraph 24.L.

C. Remove the plate holder slide lock secured with two slide lock screws.

D. Remove the plate holder strip secured with the holder strip screws.

E. Remove the plate holder catch by removing the four holder catch screws.

F. If it is necessary to replace the velvet pad, clean the back frame of the old velvet pad and all old cement. Recement the new velvet pad with EC-880 cement.

14. GRAFLOK BACK DISASSEMBLY - 4x5

A. Remove the back from the camera as described in paragraph 12.A.

B. Remove the focusing frame assembly by simultaneously pressing the knurled finger pads of the upper and lower arm assembly (9-6 and 9) and sliding the frame to the right, free of the arm hooks.

C. Remove the hood assembly (9-1) by pressing outward on the tab of the retainer (9-2).

Note: The focusing hood assembly (9-1) is assembled with staked hinge pins. It should not be disassembled, but replaced as a unit so that trouble-free operation may be maintained.

D. Remove the focusing screens (9-4 and 5) by removing two retainers (9-2) and four screws (9-3).

Caution: When performing the next operation, hold the panel so that the springs will not fly loose into the face.

E. Pry the arm assembly (9-6 or 9) from their respective bearing holes, ease each spring terminal from its associated arm tab, and remove washers (9-8 or 11) from the arm shafts.

F. Remove slidelocks (9-14 or 18) by removing screws (9-16 or 20), springs (9-13 or 17), and washers (9-15 or 19) from the back assembly-first (9-22).

15. GRAFLOK BACK (4x5) - CLEANING AND INSPECTION.

A. Wash the ground glass focusing screen with soap and water; rinse thoroughly and dry.

B. Check focusing frame (9-12) and back assembly-first (9-22) on a machined surface plate. If these parts do not lie flat they must be straightened.

C. Clean the slide locks (9-14 and 18) in solvent, AN-T-37a.

16. BED REASSEMBLY

A. Assemble bed end (7-3) to bed (7-5) with two screws (7-4).

B. Assemble rack (7-1) to bed (7-5) with screws (7-2).

C. To check the rack after reassembly, make a

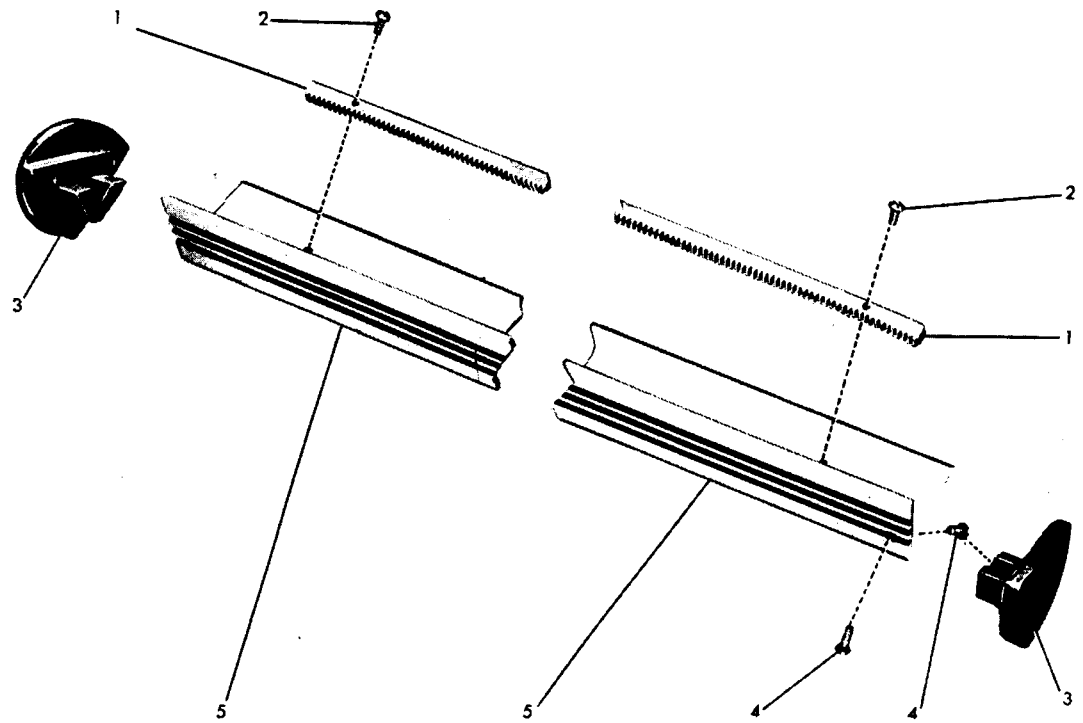
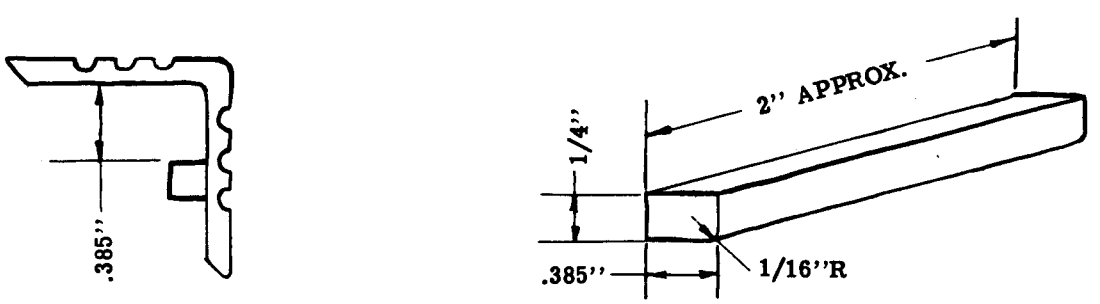


Figure 7. Bed Assembly

gage block as shown and check as illustrated.



D. The rack of the bed is lubricated by rubbing with a piece of paraffin wax, VV-P-121a. Run the pinion over the rack several times and then brush away loose chips of wax.

17. BACK FRAME REASSEMBLY

A. If it was necessary to remove either of the rear support arm studs from the back frame, replace as described in paragraph 27.D.

B. Assemble lower spring clip (6-7) to back frame (6-9) with two screws (6-8).

C. Assemble upper spring clip (6-5) to back frame (6-9) with two screws (6-6).

D. Assemble spirit level mount (6-1), spirit level (6-2) and spirit level spring (6-3) to back frame (6-9) and retain in place with two screws (6-4).

18. CARRIAGE REASSEMBLY

A. Assemble shift clamp plate assembly (5-7), yoke (5-9), pivot plate assembly (5-8) to base (5-13) and retain in place with two washers (5-6) and lock knobs (5-4). Retain lock knob (5-4) in place with screw (5-5).

> Caution: Screw (5-5) has left hand threads and must be turned to the left to be tightened.

B. Lubricate the friction surfaces of pivot plate assembly (5-8), yoke (5-9) and base (5-13) with a solution of paraffin dissolved in Benzene. Loosen knobs (5-4) and wipe surface between each plate with a thin swab saturated with the paraffin-benzene solution.

C. Assemble swing spring (5-10) to yoke (5-9) with screw (5-11).

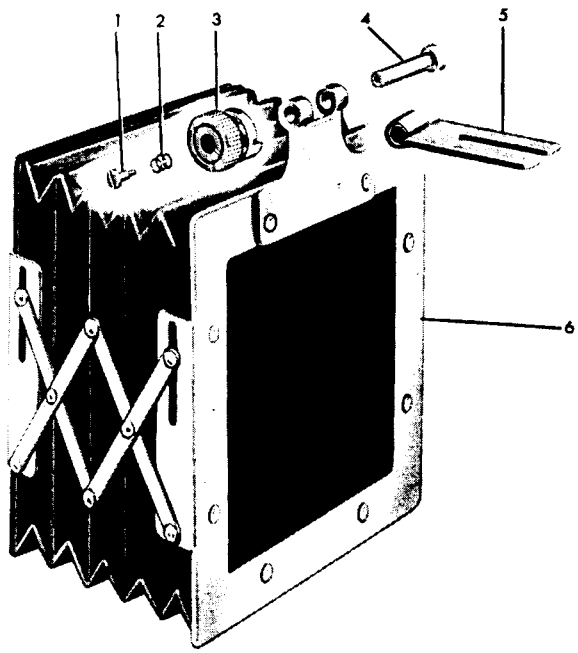


Figure 8. Lenshood

D. Assemble shift lock spring (5-1) and shift lock spring shim (5-3) to base (5-13) with two screws (5-2).

E. Cement focusing clamp wedge shim (5-12) to base (5-13) with EC-880 cement.

19. FOCUSING LOCK REASSEMBLY

A. Assemble focusing shaft lock knob (4-7), focusing lock bushing (4-3), focusing lock clamp (4-8), spring (4-9) and washer (4-10) to focusing shaft (4-5).

B. Assemble focusing shaft knob (4-4) to shaft (4-5) and retain in place with groove pin (4-6).

C. Assemble focusing shaft to cover plate (4-2) and retain in place with focusing shaft dowel screw (4-1).

20. FRONT STANDARD REASSEMBLY

A. Assemble slide lock centering pin (3-18) to front standard plate (3-19).

B. Assemble two tension springs (3-16) to front standard plate (3-19) with two pins (3-17).

C. Assemble lensboard retaining plate (3-12) to front standard plate (3-19) with four screws (3-13).

D. Assemble lensboard slide lock (3-14) to front standard plate (3-19) with two screws (3-15).

E. Assemble front standard plate (3-19) to front standard assembly-first (3-11).

F. Assemble pinion (3-5) to front standard assembly-first (3-11).

G. Assemble rack (3-3) to front standard assembly-first (3-11) with two screws (3-4).

H. Assembly locking rack (3-6), two washers (3-7), two spacers (3-8) and rack (3-9) to front standard assembly-first (3-11) with two screws (3-10).

J. Assemble pinion shaft knobs (3-1) to pinion shaft (3-5) with pinion shaft knob set screws (3-2).

K. Lubricate racks (3-3, 3-6 and 3-9) with paraffin VV-P-121a. Run the pinion over the racks several times and then brush away loose chips of paraffin.

L. Adjust the rising front pinion as follows: Slide the pinion to the left until the right pinion teeth are disengaged from the locking rack (3-6). Assemble the right knob on the shaft to within 1/32 of an inch of the casting and tighten the set screw. Assemble the left knob to within 3/16 of an inch of the casting and tighten the set screw.

21. TRIPOD HEAD REASSEMBLY

A. Assemble clamp hinge (2-7) to support assembly (2-10) with dowel pin (2-9).

B. Assemble clamp hinge lock screw (2-8) to support assembly (2-10) with dowel pin (2-9).

C. Assemble clamp hinge lock knob (2-6) to clamp hinge lock screw (2-8).

D. Assemble support plates (2-15) and support assembly (2-10) to rotating plate (2-14) each with two screws (2-16), then drive the dowel pins in place. If the dowel pins (2-17) have not been used, the drawing in Section 75 should be followed. If the present dowel holes have been distorted they should be reamed larger to accomodate a slightly larger dowel pin. Drill and ream the hole about .0007" smaller than the dowel pin. Lubricate the friction surfaces of support plates (2-15) and support assembly (2-10) with AN-G-6 lubricant.

E. Assemble clamp lock plate (2-13) to support assembly (2-10).

F. Assemble end plates (2-11) to support assembly (2-10) with two screws (2-12).

G. Cement base pad (2-5) to base (2-4) with EC-880 cement.

H. Assemble cover (2-2) and support assembly (2-10) to base (2-4) and retain in place with four screws (2-3). Lubricate friction surfaces of support assembly (2-10) and base (2-4) with AN-G-6 lubricant.

I. Assemble handle (2-1) to support assembly (2-10).

22. CAMERA REASSEMBLY - BASIC

A. Assemble bed (1-31) to pan tilt tripod head (1-1).

B. Assemble rear carriage assembly (1-20), focusing clamp wedge (1-19) and focusing lock assembly (1-16) to bed with two screws (1-17) and two screws (1-18). Wrap the friction shim (5-12) on carriage assembly (1-20) around bed (1-31) as illustrated.

C. Assemble back frame (1-21) and rear carriage assembly (1-20) with screws (1-29) and washers (1-30).

D. Assemble yoke arm (1-28) to back frame and yoke with screw (1-27).

E. Assemble rear support locking knob (1-23), spring washer (1-24) and flat washers (1-25 and 1-26) to stud of back frame and retain in place with screw (1-22).

Caution: Screw (1-22) has left hand threads and must be turned to the left to tighten.

F. Assemble front carriage assembly (1-20), focusing lock assembly (1-16) and focusing clamp wedge

(1-19) to bed with two screws (1-17) and two screws (1-18). Wrap the friction shim (5-12) on carriage assembly (1-20), around bed (1-31) as shown below.

G. Assemble lens hood clamp screw (1-2) to front standard (1-3).

H. Assemble front standard (1-3) to front yoke (1-20) with screw (1-11) and washer (1-12).

I. Assemble yoke arm (1-10) to front standard and front yoke with screw (1-9).

J. Assemble support arm locking knob (1-5), spring washer (1-6), flat washers (1-7 and 1-8) to stud of front standard (1-3) and retain in place with screw (1-4).

Caution: Screw (1-4) has left hand threads and must be turned to the left to tighten.

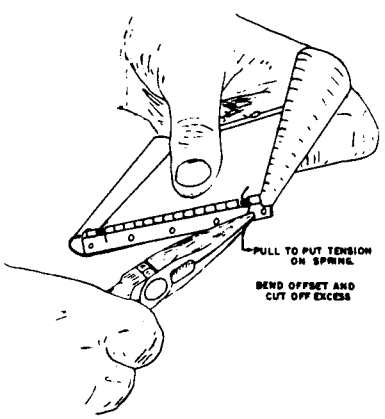
K. Assemble bellows (1-13) to the front standard (1-3) with twelve screws (1-14) and to the back frame (1-21) with twelve screws (1-15).

23. LENS HOOD REASSEMBLY

A. Assemble hinge (8-5), hinge pin (8-4), hinge pin knob (8-3) and hinge pin spring (8-2) to lens hood (8-6) with hinge pin screw (8-1).

24. GRAPHIC BACK REASSEMBLY (4x5) and (4x5 - 3-1/4x4-1/4)

A. To reassemble the old style liner and door assembly, position the hinge section of the panel door in the corresponding hinge of the liner. Position the two panel door springs in the two open positions of the hinge, with the straight ends of the spring extending inwards between the panel door and liner. Carefully drive the hinge pin into the hinge. If a panel door spring is being replaced with a new one it will be necessary to place tension on the spring as illustrated.



Grasp one straight end of the spring and pull out from 1/8 to 1/4 inch. Form an offset to lay flat on each terminal and cut off excess of 3/16 inch.

B. Place the old style liner and door assembly in the focusing frame with the panel door catch fitted in the cut-out of the panel.

C. If the focusing frame accepts only a ground glass focusing screen,, place the screen in the frame with the ground surface of the screen facing inside, the polished surface facing the outside.

D. If the focusing frame accepts an Ektalite focusing screen, place the Ektalite screen, with the grooved side of the screen towards the outside of the frame. Place the ground glass focusing screen with the ground surface on the Ektalite screen.

E. On older style backs, replace the focusing screen retainers with the edge of the panel shields under the inner edge of the focusing screen retainers. Secure, gently, with the retainer screws.

F. On newer style backs, secure the focusing screen with the focusing screen retainers and retainer screws.

G. On newer style backs, replace the focusing hood assembly by pressing the closed hood gently onto the focusing frame between the two focusing screen retainers until the retainers engage the hood.

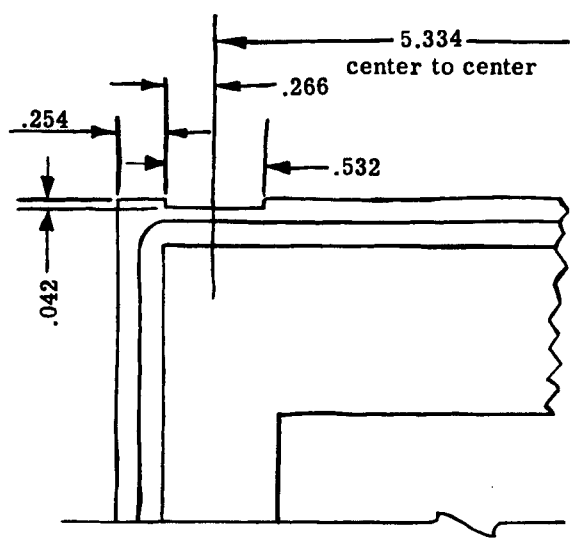
H. Secure the top and bottom panel spring assemblies to the focusing frame with the panel spring end screws.

I. Position the focusing frame on the back assembly, being certain that the ears of the focusing frame are towards the open end of the back assembly.

J. Place one panel spring washer under each panel spring and secure the springs with the center panel spring screws.

K. Replace the lock pin plates and secure with lock plate screws.

L. The lock pin plates may be used to modify the older backs that utilized pins driven into the back frame. It is necessary to groove the edge of the back to the dimensions shown.



25. GRAFLEX BACK REASSEMBLY - (4x5) and (4x5 - 3-1/4x4-1/4)

A. Replace the plate holder catch and secure with four holder catch screws.

B. Position the plate holder strip and, secure with the holder strip screws.

C. Replace the plate holder slide lock and secure with two slide lock screws.

D. Position the lock pin plate with the pin toward the inside edge of the back and secure with the lock plate screws.

26. GRAFLOK BACK REASSEMBLY - 4x5

A. Lubricate the slide locks by wiping both sides with a block of paraffin wax, Federal Spedification VV-P-121a. Position the slide locks (9-13 and 9-16) so that the slots angle to the left and toward the center. Reassemble the springs (9-14 or 9-17) and the special slide lock screws (9-15 or 9-18) so that the screw shoulder fits within the slot of the slide lock.

B. To simplify the following step, fabricate a special spring tool by drilling a , 086 inch (No. 44) diameter hole in the end of a 1/4 inch diameter rod about 6 inches long. If facilities do not permit fabrication of this tool use heavy pliers.

Warning: Hold the frame in a position so the spring will not hit the face of the repairman if it should kick out.

C. To reassemble the arms and springs, first place one washer (9-9 or 9-12) over the arm shaft. Spring (9-8) actuates the upper arm (9-7) and spring (9-11) actuates the lower arm (9-10). Drop the straight end of one spring into its correct relative position in the cavity of the focusing frame (9-6). Slip the tool over the formed end of the spring or use heavy duty pliers and wind the terminal 1/2 turn clockwise and hold. Then push the arm shaft through the outer casting hole and the spring into the center casting hole. Release the spring terminal so that it bears on the arm shaft tab.

D. Reassemble the Ektalite focusing screen (9-15) with the grooved side facing the outside of the focusing frame. Place the ground glass focusing screen (9-4) with the ground surface on the Ektalite. Position the hood retainers (9-2) and secure with screws (9-3).

E. Fold the focusing hood (9-1) by squeezing the sides together, swinging up the bottom, and, lastly, swinging the top down to latch. Press the closed hood gently onto the focusing frame between the two focusing screen retainers until the retainers engage the hood.

F. Lay the focusing frame assembly on the back so that the catch of the arm assembly (9-7 or 9-10) rests in its corresponding groove of the back. Slide the focusing frame to the left until the arm assemblies engage the back frame hooks.

27. CONVERSION - GRAPHIC VIEW I TO GRAPHIC VIEW II.

A. The possible conversions are outlined as follows:

Conversion "A" - Requires new yokes, studs, and support arms, and is the least expensive to make. This conversion gives the older Graphic View I the same swings and tilts of the Graphic View II, but the bellows extension will remain the same (12-1/2 inches).

Conversion "B" - Requires new yokes and support arms as in conversion "A" - also new front standard and back frame assemblies. The bellows extension remains the same.

Conversion "C" - The same as conversion "A" with the additional parts consisting of bed, bed rack, and bed screws to increase the maximum bellows extension to 16 inches. A new carrying case is required because of the longer track.

Conversion "D" - Requires new yokes, support arms, front standard and back frame assemblies, new bed assembly and a new carrying case.

B. The following chart lists parts required for specific conversions. Refer to the parts list, using the parts list index number, for list price of each component.

CONVERSION PARTS LIST

Parts List Index No.	Part Number	Nomenclature	Conversion A	B	C	D
5-9	31277-P1	Yoke - Camera support	2	2	2	2
1-10	31278	Arm - Yoke	4	4	4	4
6-9	25646	Stud - Support arm	4	-	4	-
3-	25676-G2	Front standard assembly	-	1	-	1
6-9	25668-G2	Back frame assembly	-	1	-	1
7-5	31286-P1	Bed	-	-	1	-
7-1	31287-P1	Rack - Bed	-	-	1	-
7-4	104B1-4	Screw - Bed rack (total of 6 needed)	-	-	1*	-
1-31	31288-G1	Bed Assembly	-	-	-	1
See Price List	Cat. #4243	Carrying Case	-	-	1	1

*One additional screw (104B1-4) is needed along with the five screws from the old bed for the bed and rack.

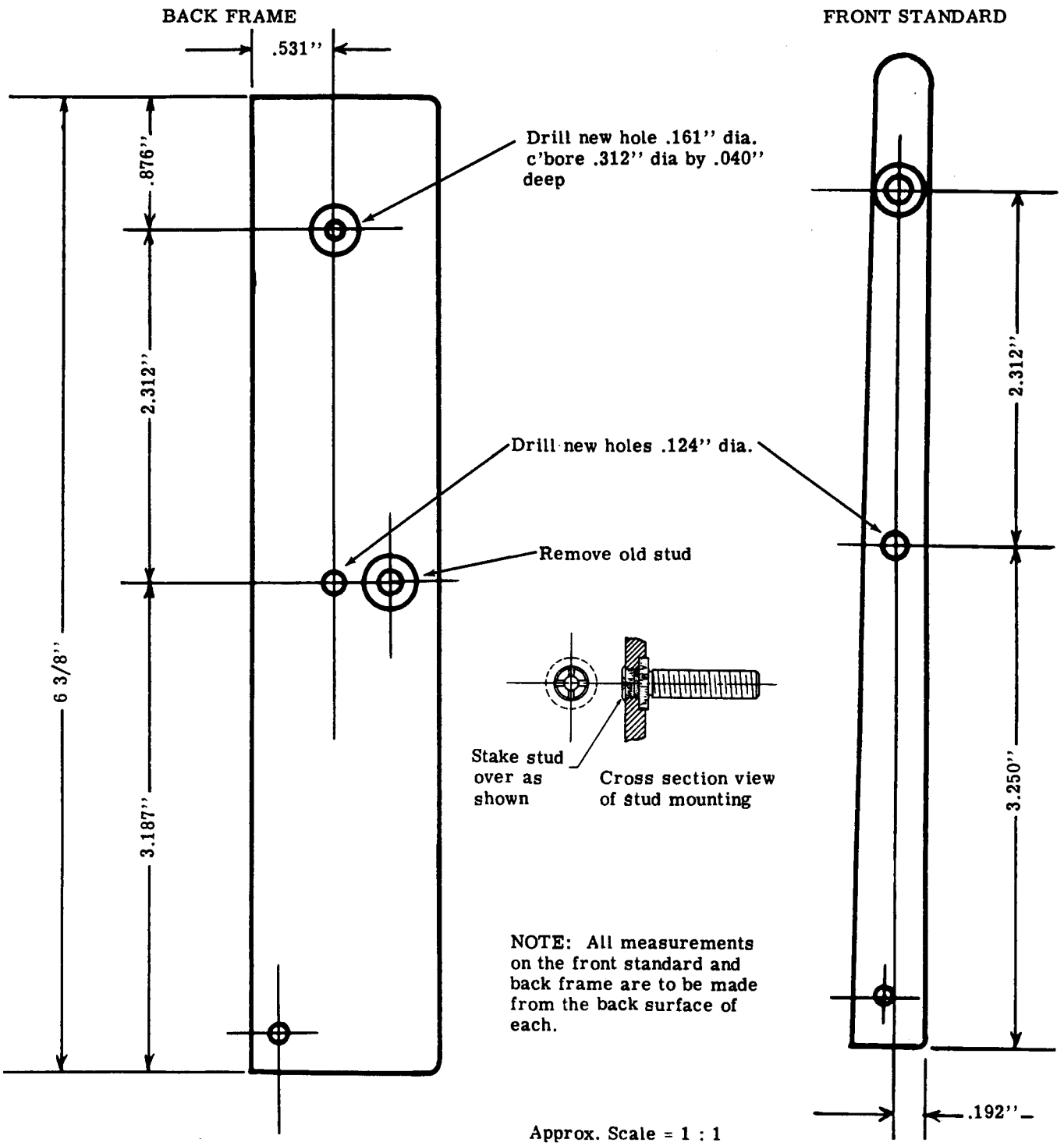
1. Conversions "A" and "B" require the modification of the front standard and back frame by a repairman in the shop.

2. Conversions "C" and "D" require only replacement of corresponding Graphic View II parts.

3. All conversion parts will be furnished in Grey Hammertone instead of the old Aluminum enamel finish.

C. Remove the front standard (1-3) as described in paragraph 3 and disassemble all attaching parts as described in paragraph 5. Drill a .124 inch diameter hole, as shown in the drawing, for the pivot screw. Assemble the attaching parts to the front standard and assemble the new yoke (5-9), using the new support arms (1-10). The support arms should be positioned with the notched edge of the slot to the front of the camera.

Note: The retaining screws (1-4) for the support arm knobs have left hand threads.



Approx. Scale = 1 : 1

D. Remove the back frame (1-21) as described in paragraph 3 and disassemble all attaching parts as described in paragraph 8. Remove the old back frame studs as follows:

1. Drill the back of the stud with either a 3/16 inch dia. or #12 drill to allow for easier removal of the stud.
2. Pull the stud as described:
   a. Use a washer (or washers) having an inside diameter of 11/32 inch and is at least 1/8 inch thick.
   b. Center the washer around the stud shoulder. Thread an old support arm knob (1-5), inverted, (or a large 8-32 nut) on the stud and tighten against the washer to withdraw the knurled shank.
3. Drill new stud mounting holes 0.161 inch dia. and counterbore 0.312 inch dia. by 0.040 inch deep (+.000 -.005)* as shown in the drawing. Also drill a 0.124 inch dia. hole, as shown in the drawing, for the frame pivot screw. Insert knurled shank of new stud into the new hole and stake in place as shown. Support the back with the shoulder of the steel stud and NOT on the back casting. Assemble the back as described in paragraph 16 and mount to the camera with the new yoke (5-9) and new support arms (1-28). Assemble the support arms with the notched edge of the slot facing the front of the camera.

Remember: The retaining screws (1-22) for the support arm knobs have LEFT HAND threads.

*NOTE: Do not counterbore this hole deeper than 0.040 inch as the stud must extend beyond the surface of the frame casting to provide a solid surface for staking the stud and also to act as a bearing surface to the support arm.

28. LUBRICANTS, SOLVENTS and ADHESIVES

Compound	U. S. Specification	Manufacturer	Use
Lubricants			
#107 Lubriplate	AN-G-6	Fiske Bros Refining Company Newark, New Jersey	Tripod head
Paraffin Wax	VV-P-121a	Socony Vacuum New York, New York	Racks of bed and rising front
Solvents			
Trichlorethylene (or Carbon Tetrachloride)	AN-T-37a	Eastman Kodak Company Rochester, New York	Cleaning metal parts
Toluol	AN-T-541	Eastman Kodak Company Rochester, New York	Removing old EC-880 cement
Adhesives			
EC-880 cement	MIL-C-4003	Minnesota Mining & Manufacturing Company Detroit, Michigan	Velvet to camera back Base pad to base

PARTS LIST

The Group Assembly Parts List is listed in disassembly order. The list divides the components into major assemblies, their subassemblies and parts. By the use of indented columns, the relationship of the assemblies to the subassemblies and parts is obtained.

The column titled "Figure and Index No." contains the index number in disassembly order of the items illustrated. Do not use the figure or index number in correspondence. . . specify the catalog or part number and name.

The column titled "Part Number" contains the Graflex part and drawing number, or the catalog number of the item listed.

The column titled "Nomenclature" (including numbered columns) lists item nomenclature on the Graflex drawing. In this column the relationship of the item listed to the final assembly is indicated. If the nomenclature begins in the column marked "4", this item will be a component of the first assembly above which preceeds it in column marked "3". The assembly in the column marked "3" will be a component of the first assembly which preceded it in the column marked "2", etc.

The column titled "Qty." lists the quantity required at that assembly. . . it is not necessarily the total. When the quantity figure is omitted, the code "AR" or "NP" will appear. The code "AR" is used for bulk items when an indefinite amount may or may not be used "as required". The code "NP" is used for items that are part of a riveted assembly and the next higher assembly should be ordered as these parts are "not procurable".

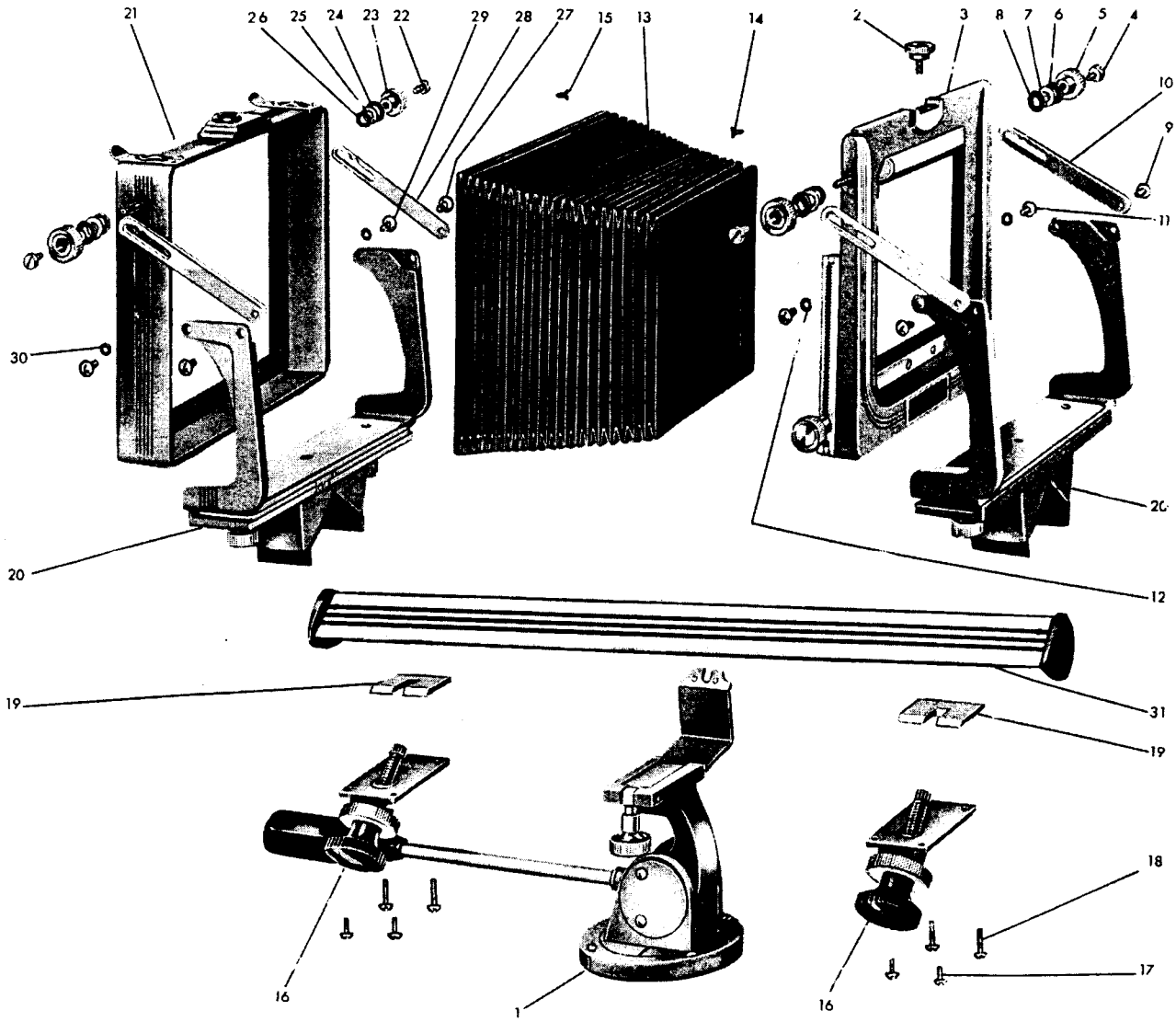


Figure 1. Basic Camera - Graphic View II

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	25679	Camera - 4x5 Graphic View I	Ref
	31762-G2	Camera - 4x5 Graphic View II	Ref
1-1	29787-G1	. Head Complete - Tripod (See figure 2)	1
-2	25702	. Screw - Special, lenshood	1
-3	25710-G2	. Standard Complete - Front (See figure 3) (Graphic View II only)	1
	25710-G1	. Standard Complete - Front (See figure 3) (Graphic View I only)	1
-4	25602	. Screw - Machine, knob retaining, #2-56 left hand, F Fil H, Brass, chrome plate	2
-5	25643	. Knob - Support arm	2
-6	30028-P2	. Washer - Spring, support arm, 3/8 in. OD, x 11/64 in. ID x 1/32 in. thk., spring steel	2

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME. State quantity.

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
1-7	30473-P39	. Washer - Flat, support arm, 3/8 in. OD x 0.175 in. ID x 0.032 in. thk, Brass, Chrome	2
-8	30473-P10	. Washer - Flat, support arm, 3/8 in. OD x 0.187 in. ID x 0.008 in. thk, fiber	2
-9	25607	. Screw - Special, support arm	2
	30028-P2	. Washer - Special, support arm	2
-10	31278	. Arm - Support, front (Graphic View II only)	2
	25615	. Arm - Support (Graphic View I only)	2
-11	25608	. Screw - Special, front & back pivot	2
-12	30028-P1	. Washer - Spring, front & back pivot, 5/16 in. OD x 9/64 in. ID x 1/16 in. thk., bronze	2
-13	25667-G1	. Bellows Assembly	1
-14	100-2-3	. Screw - Machine, front bellows frame, 3/16 in. #2-56 FH Brass, jetal	12
-15	100B2-6	. Screw - Machine, back bellows frame, 3/8 in. #2-56 FH, Brass, Ebonol (S-18)	12
-16	29769-G1	. Lock Assembly - Focusing (See figure 4)	2
‡-17	102-4-4	. Screw - Machine, 1/4 in. #4-40 RH, Brass, Chrome	4
‡-18	102-4-7	. Screw - Machine, 7/16 in. #4-40 RH, Brass, Chrome	4
-19	29757	. Wedge - Focusing clamp	2
	29788-G1	. Carriage Assembly (Graphic View I)	2
-20	29788-G2	. Carriage Assembly (See figure 5) (Graphic View II)	2
-21	25669-G2	. Frame Complete - Back (See figure 6) (Graphic View II)	1
	25669-G1	. Frame Complete - Back (See figure 6) (Graphic View I)	1
-22	25602	. Screw - Machine, knob retaining, #2-56 left hand, F Fil H, Brass, Chrome	2
-23	25643	. Knob - Support arm	2
-24	30028-P2	. Washer - Spring, support arm, 3/8 in. OD x 11/64 in. ID x 1/32 in. thk., spring steel	2
-25	30473-P39	. Washer - Flat, support arm, 3/8 in. OD x 0.175 in. ID x 0.032 in. thk., Brass, Chrome	2
-26	30473-P10	. Washer - Flat, support arm, 3/8 in. OD x 0.187 in. ID x 0.008 in. thk., fiber	2
-27	25607	. Screw - Special, support arm	2
-28	31278	. Arm - Support, rear (Graphic View II)	2
	25626	. Arm - Support, rear (Graphic View I)	2
-29	25608	. Screw - Special, front & back pivot	2
-30	30028-P1	. Washer - Spring, front & back pivot, 5/16 in. OD x 9/16 in. ID x 1/16 in. thk., Bronze	2
-31	31288-G1	. Bed Assembly (Graphic View II) (See figure 7)	1
	25677	. Bed Assembly (Graphic View I) (See figure 7)	1

‡NOTE: Check screws on Graphic View I manufactured before 1943 (Serial number 342000), the thread size may be #3-48. Order part number 102-3-4.

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME.

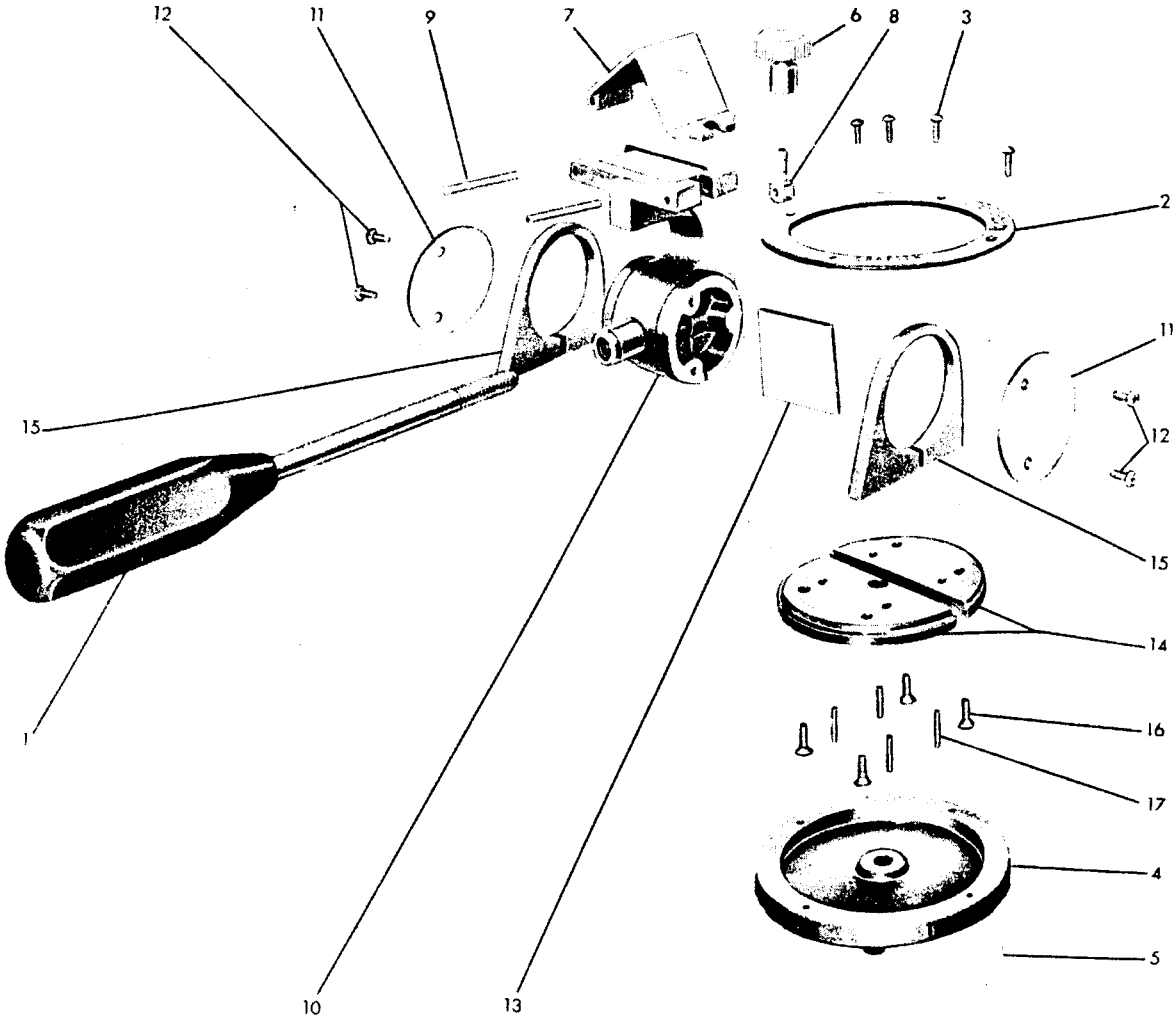


Figure 2. Tripod Head

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	29787-G1	Head Complete - Tripod	Ref
2-1	25711-G1	. Handle Assembly	1
-2	30133-P2	. Cover - Base	1
-3	30921-P16	. Screw - Self tapping, 5/16 in. #4-40 RH, Steel, Chrome	4
-4	25725-G1	. Base Assembly	1
-5	29783	. Pad - Base	1
	29786-G1	. Support & hinge assembly	1
-6	25707	. . Knob - Clamp hinge lock	1
-7	25701	. . Clamp hinge	1
-8	25706	. . Screw - Clamp hinge lock	1
-9	25705	. . Pin - Clamp hinge, 0.125 in. dia x 1-1/4 in. lg., Steel, Cadmium plate	2
-10	29750-G1	. . Support Assembly	1
-11	25704	. . Plate - Camera support end	2
-12	30921-P16	. . Screw - Self tapping, 5/16 in. #4-40 RH, Steel, Chrome	4
-13	25597	. . Plate - Reinforcing	1
-14	25727	. . Plate - Retaining	1
-15	25728	. Support barrel	2
-16	100-6-6	. . Screw - Machine, 3/8 in. #6-32 FH, Steel, Cadmium	4
-17	25789	. . Dowel - 0.0937 in. dia x 7/16 in. lg., drill rod	4

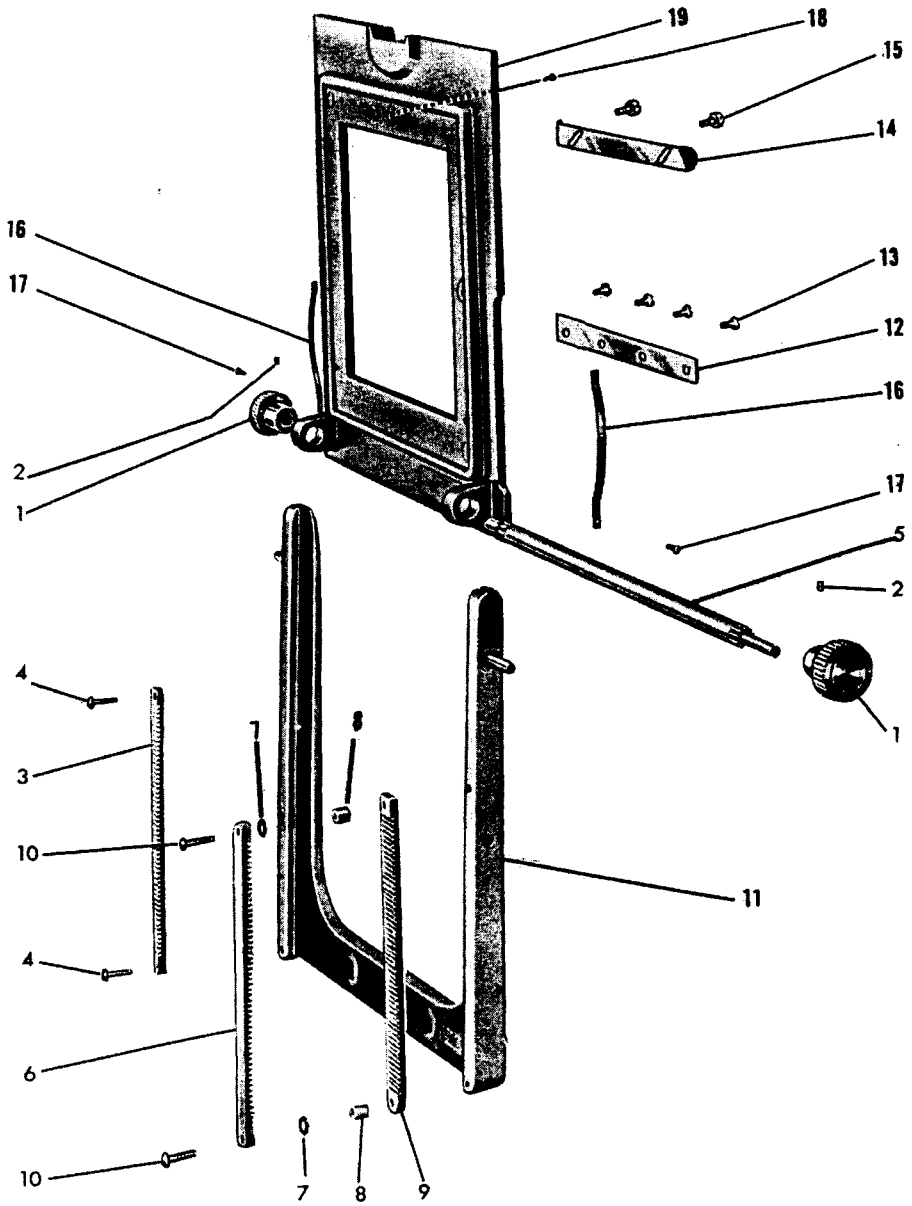


Figure 3. Front Standard Complete - Graphic View II

Figure and Index No.	Part Number	1 2 3 4 5 Nomenclature	Qty.
	25710-G1	Standard Complete - Front, Graphic View I	Ref.
	25710-G2	Standard Complete - Front, Graphic View II	Ref.
3-1	25689	Knob - Pinion shaft	2
-2	24473	Screw - Pinion shaft knob, 1/8 in. lg. #4-48 slotted, headless, cup point set screw, chrome plate	2
-3	25763	Rack - Left, Graphic View II	1
	25638	Rack - Left, Graphic View I	1
-4	110B2-4	Screw - Rack, Left, 1/4 in. lg. #2-56 straight side binding head, brass machine screw, chrome plate	2
-5	25675-G1	Shaft Assembly	1

Figure and Index No.	Part Number	1 2 3 4 5	Nomenclature	Qty.
	25676-G1		Standard Assembly - Front, Graphic View 1 (No longer available, order 25676-G2 and see Page 11 for Modification)	
	25676-G2		Standard Assembly - Second - Front, Graphic View II	1
-6	25763		Rack - Locking, right.	1
-7	30473-P19		Washer - Flat, 0.188 in. O.D. x 0.140 in. I.D. x 0.010 in. thick, aluminum	AR
-8	25674		Spacer - Rack, right	2
-9	25656		Rack - Right	1
-10	30067-P2		Screw - Rack, right, special	2
-11	25676-G3		Standard Assembly First - Front, Graphic View II	1
	25690		Name Plate.	1
	30921-P1		Screw - Name plate, 1/8 in. lg. oval head, drive screw, cadmium plate	2
	26544		Stud	NHA
	25636-P2		Standard - Front, Graphic View II	NHA
	25636-P1		Standard - Front, Graphic View I (No longer available, order 25676-G3 and see Page 11 for Modification)	
	25678-G1		Plate Assembly - Front Standard	1
-12	25048		Strip - Lensboard	1
-13	100-2R3		Screw - Lensboard strip, 3/16 in. lg, #2-56 Flat, Phillips recessed head, steel, machine screw, chrome plate.	4
-14	25616		Lock - Lensboard slide	1
-15	25648		Screw - Slide lock, special	2
-16	25696		Spring - Tension	2
-17	30638-P8		Pin - Tension spring	2
-18	30638-P8		Pin - Slide lock, centering	1
-19	25618-P1		Plate - Front Standard	1

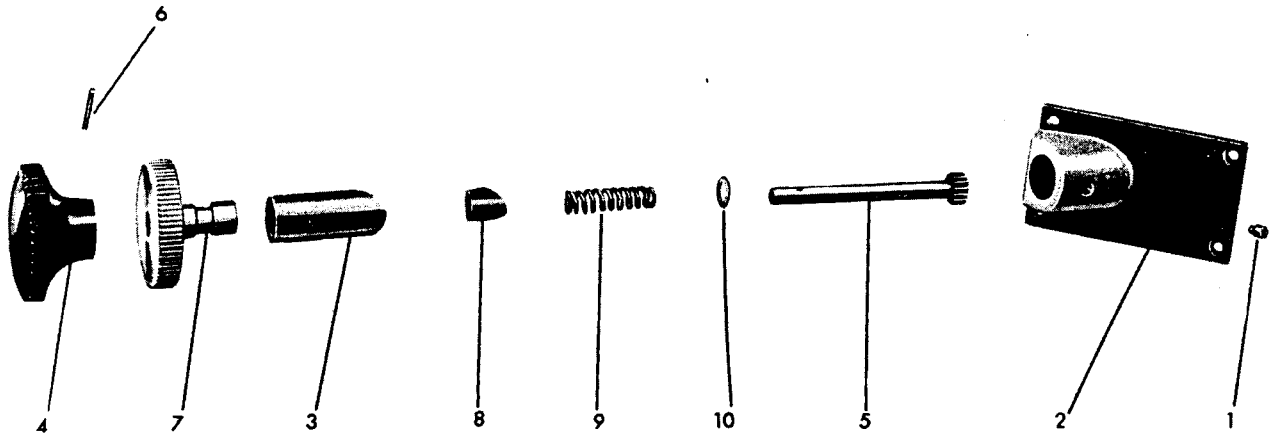


Figure 4. Focusing Lock Assembly

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	29769-G1	Lock Assembly - Focusing	Ref
4-1	29755	. Screw - Focusing shaft dowel	1
-2	29754-P1	. Plate - Cover	1
-3	29756	. Bushing - Focusing lock	1
	29765	. Shaft Complete	1
-4	29767	. . Knob - Focusing shaft	1
-5	29785	. . Shaft Assembly - Pinion	1
-6	180-2-10	. . Pin - Groove, 5/8 in. lg. x #2 Steel, Cadmium plate	1
-7	29762	. Knob Assembly - Focusing shaft lock	1
-8	29761	. Clamp - Focusing lock	1
-9	31243	. Spring - Focusing shaft	1
-10	30473-P13	. Washer - Flat, 0.350 in. OD x 0.205 in. ID x 0.021 in. thk., Brass, Cadmium plate	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME. State quantity.

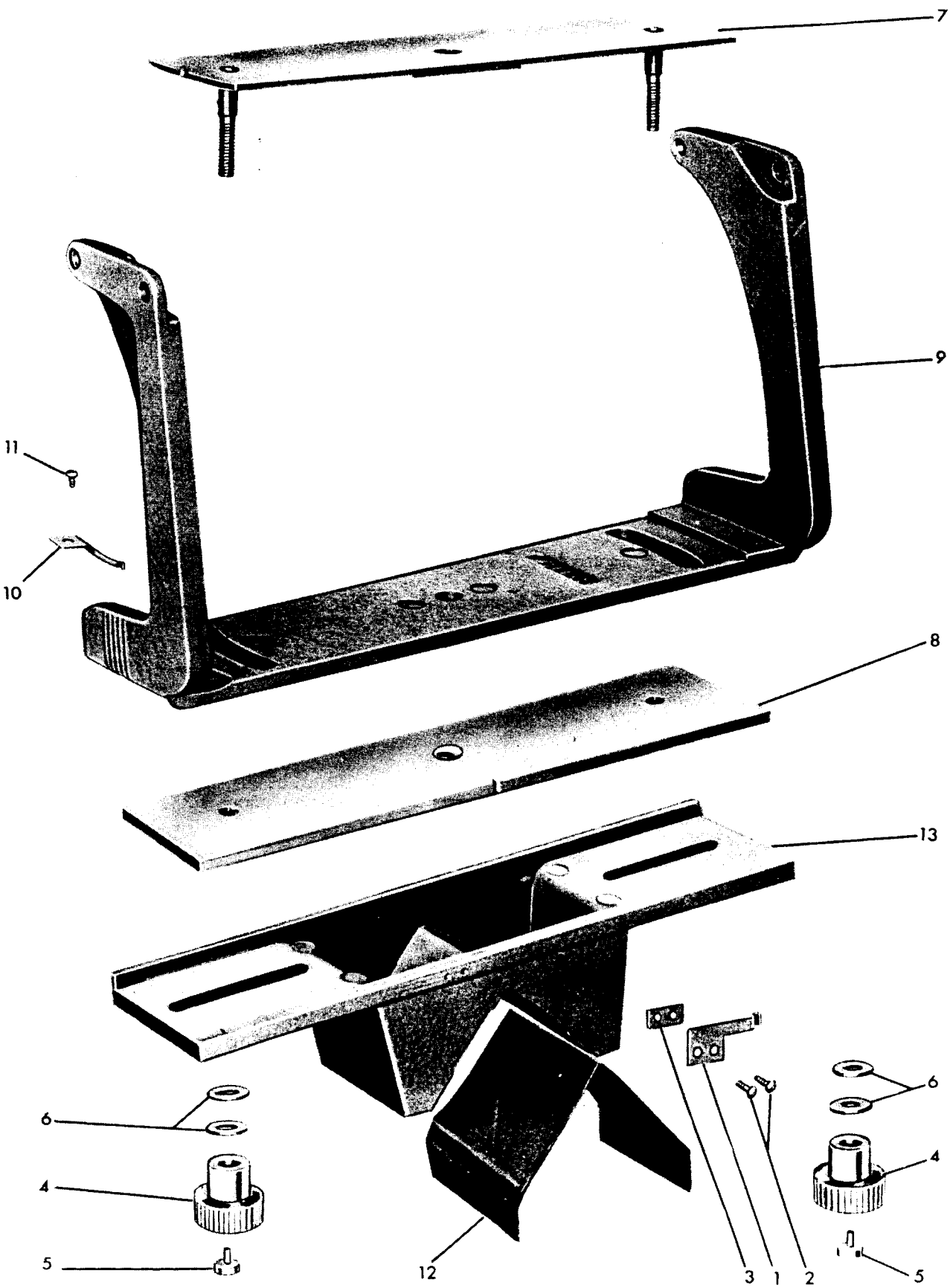


Figure 5. Carriage Assembly - Graphic View II

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	29788-G1	Carriage Assembly - Graphic View I	Ref
	29788-G2	Carriage Assembly - Graphic View II	Ref
5-1	25620	. Spring - Shiftlock	1
-2	102-1-2	. Screw - Machine, shiftlock, 1/8 in. #1-64 RH, Steel, Chrome	2
-3	30591	. Shim - Shift lock spring	AR
-4	25643	. Knob	2
-5	25602	. Screw - Machine, knob retaining, #2-56 Left hand, F Fil H, Brass, Chrome	2
-6	30473-P39	. Washer - Flat, 0.375 in. OD x 0.175 in. ID x 0.032 in. thk. Brass, Chrome	2
-7	25670	. Plate Assembly	1
-8	25671	. Plate Assembly	1
-9	31277-P1	. Yoke - Graphic View II	1
	25637	. Yoke - Graphic View I	1
-10	25611	. Spring - Swing	1
-11	102-1-2	. Screw - Machine, swing spring, 1/8 in. #1-64 RH, Steel, Chrome	1
-12	25776	. Shim - Focusing clamp wedge	1
-13	25633-P1	. Base	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME.
State quantity.

AR - As Required

Figure 42 GRAPHIC VIEW I & II

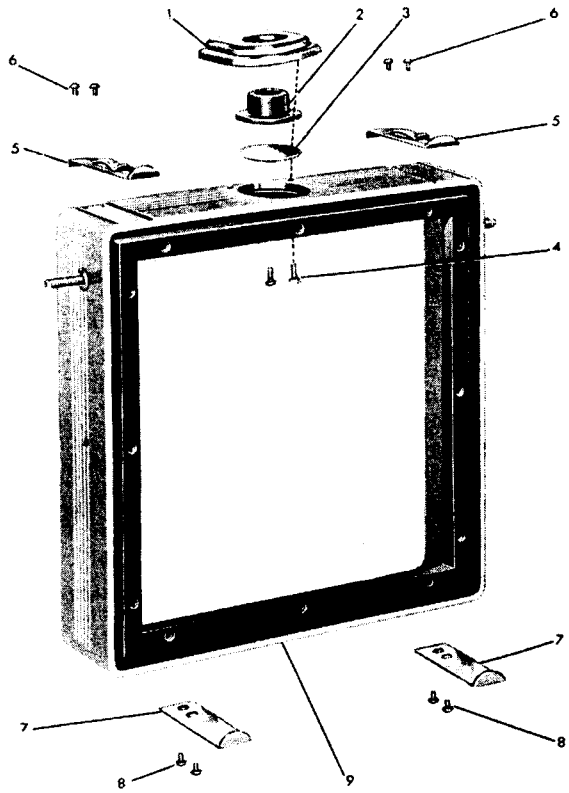


Figure 6. Back Frame - Graphic View II

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	25669-G1	Frame Complete - Back, Graphic View I	Ref
	25669-G2	Frame Complete - Back, Graphic View II	Ref
6-1	25628-P1	. Mount - Spirit level	1
-2	25682	. Level - Spirit	1
-3	30810	. Spring - Spirit level	1
-4	102-2-4	. Screw - Machine, spirit level mount, 1/4 in. #2-56 RH, Steel, Chrome	2
-5	25641	. Clip - Upper spring (Obsolete - replaced by #34503-P1)	NP
	34503-P1	. Clip - Upper spring	2
-6	102-2-2	. Screw - Machine, spring clip, 1/8 in. #2-56 RH, Steel, Chrome	4
-7	25624	. Clip - Lower spring	2
-8	102-2-2	. Screw - Machine, spring clip, 1/8 in. #2-56 RH, Steel, Chrome	4
-9	25668-G2	. Frame Assembly - Back, Graphic View II	1
	25668-G1	. Frame Assembly - Back, Graphic View I	1
	25646	. Stud - Rear support arm	2
	25635-P1	. . Frame - Back, Graphic View II	NP
	25635-P2	. . Frame - Back, Graphic View I	NP

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAM
State quantity.
NP - Non Procurable.

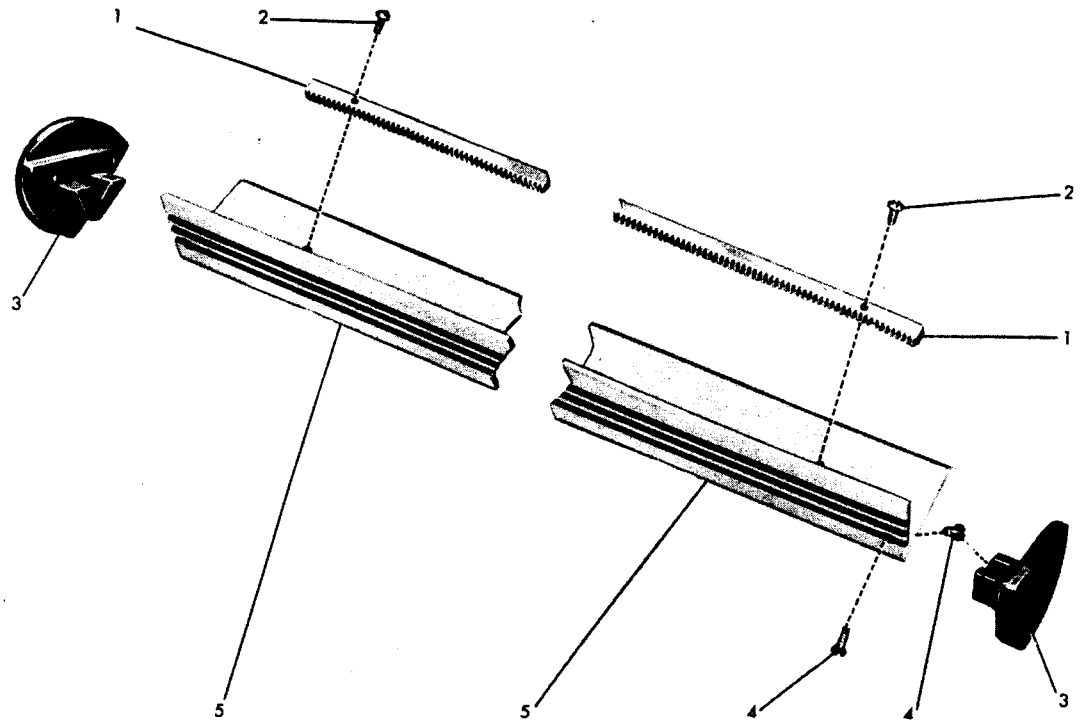


Figure 7. Bed Assembly

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	25677	Bed Assembly - Graphic View I	Ref
	31288-G1	Bed Assembly - Graphic View II	Ref
7-1	31287-P1	. Rack, Graphic View II	1
	25625	. Rack, Graphic View I	1
-2	102B1-4	. Screw - Machine, 1/4 in. #1-64 RH, Brass, Ebonol, Graphic View II	6
	102B1-4	. Screw - Machine, 1/4 in. #1-64 RH, Brass, Ebonol, Graphic View I	5
-3	25629-P1	. End - Bed	2
-4	104B1-4	. Screw - Machine, 1/4 in. #1-64 Oval H, Brass, Ebonol	4
-5	31286-P1	. Bed - Graphic View II	1
	25619	. Bed - Graphic View I	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME. State quantity.

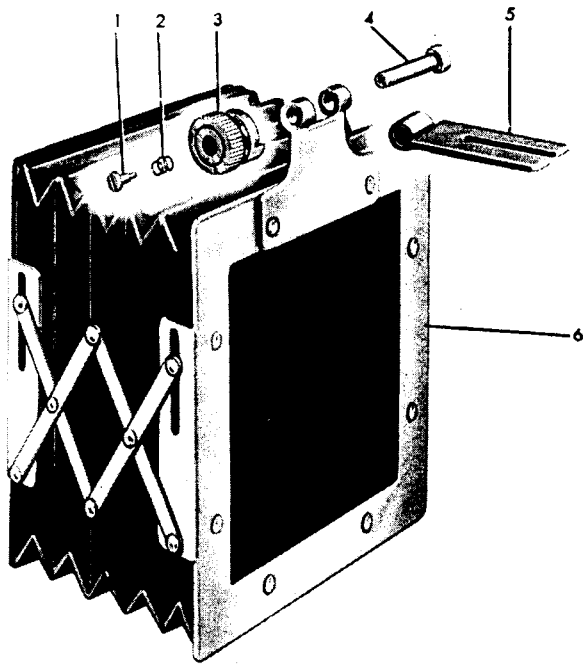


Figure 8. Lenshood

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	Cat. #9265	Lenshood - Accordian, 4x5 Graphic View I & II	Ref
8-1	25748	. Screw - Hinge pin	1
-2	25749	. Spring - Hinge pin	1
-3	25743	. Knob - Hinge pin	1
-4	25747	. Pin - Hinge	1
-5	25742	. Hinge - Front standard section	1
-6	25766-G1M	. Lenshood - First Assembly	Ref

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAM
State quantity.

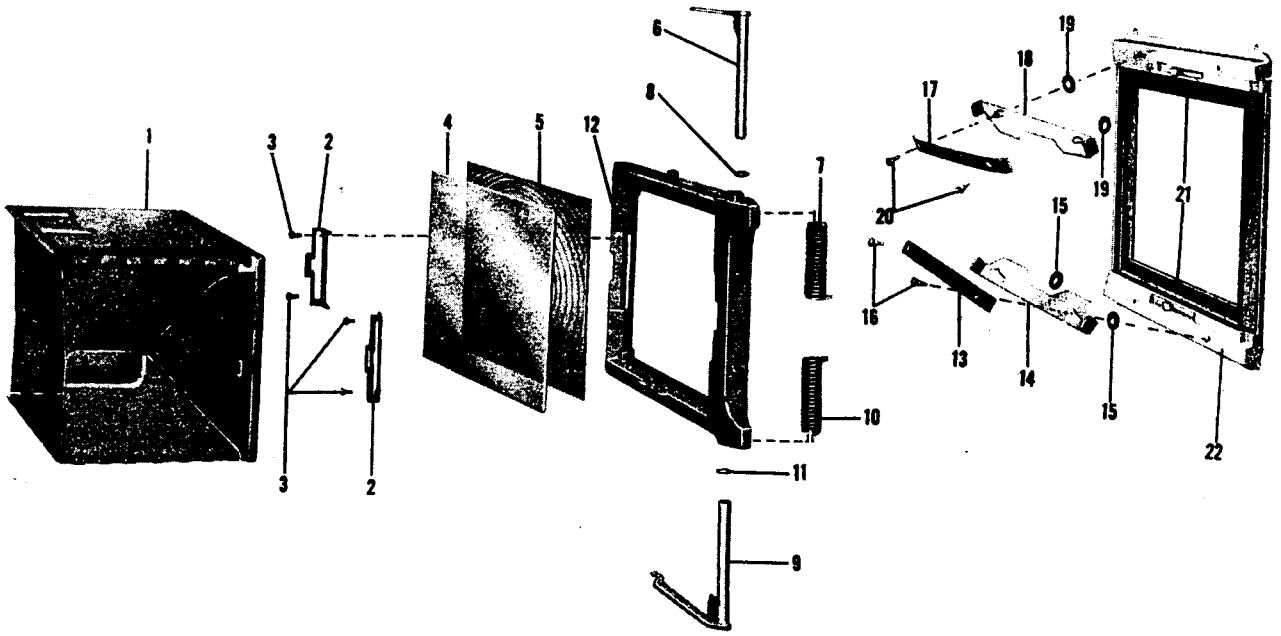


Figure 9. GRAFLOK BACK

Figure and Index No.	Part Number	1 2 3 4 5	Nomenclature	Qty.
9-	33900-G1		BACK COMPLETE-Graflok (Cat. #9255)	1
-1	30159-G4	.	HOOD ASSEMBLY (Cat. #9262)	1
	33901-G1	.	FRAME COMPLETE-Focusing (with Ektalite) (Cat. #9261)	1
-2	30371-P1	. .	RETAINER	2
	Attaching Part			
-3	100-2-3	. .	SCREW-Machine, 3/16 in. lg., #2-56 Flat Hd., Steel, Black Oxide and Clear Lacquer	4
	---***---			
-4	30414-P1	. .	SCREEN-Ground Glass	1
-5	31935-P1	. .	SCREEN-Ektalite	1
	33902-G1	. .	FRAME ASSEMBLY-Focusing	1
-6	31717-G6	. . .	ARM ASSEMBLY-Upper	1
-7	31916-P1	. . .	SPRING-Upper	1
-8	30473-P53	. . .	WASHER-Flat, 0.312 in. OD x 0.219 in. ID x 0.010 in. thick, Brass, Ebonol	1
-9	31717-G5	. . .	ARM ASSEMBLY-Lower	1
-10	31916-P2	. . .	SPRING-Lower	1
-11	30473-P53	. . .	WASHER-Flat, 0.312 in. OD x 0.219 in. ID x 0.010 in. thick, Brass, Ebonol	1
-12	31915-P4	. . .	FRAME-Focusing	1
	---***---			
	33899-G1	.	BACK ASSEMBLY-Second	1
-13	30937-P5	. .	SPRING-Slidelock	1
-14	31920-P1	. .	SLIDELOCK-Lower	1
-15	33500-P52	. .	WASHER-Flat, 0.203 in. OD x 0.094 in. ID x 0.008 in. thick, Brass.	2
	Attaching Part			
-16	30939-P1	.	SCREW-Special	2
	---***---			
-17	30937-P5	.	SPRING-Slidelock	1
-18	31920-P2	.	SLIDELOCK-Upper	1
-19	33500-P52	.	WASHER-Flat, 0.203 in. OD x 0.094 in. ID x 0.008 in. thick, Brass.	2
	Attaching Part			
-20	30939-P1	.	SCREW-Special	2
	---***---			
-21	31722-P3	.	STRIP-Light Seal	2
-22	33864-G1	. .	BACK ASSEMBLY-First.	1

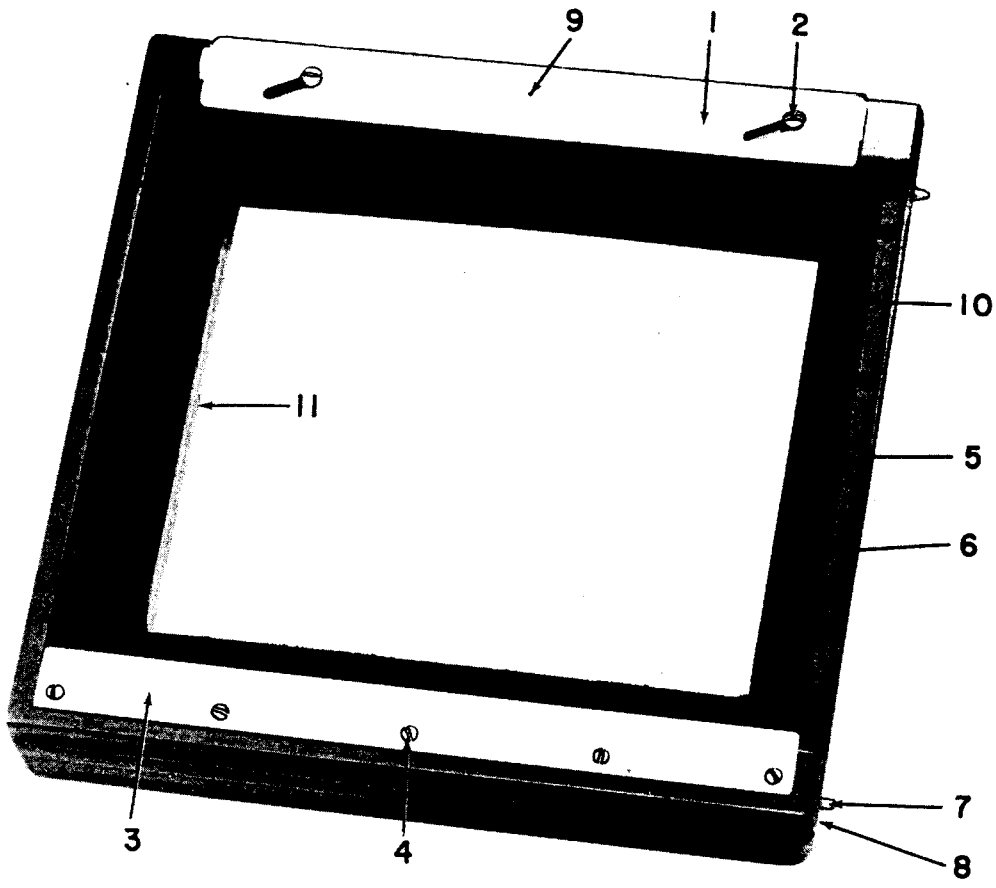


Figure 10. Graflex Back (4x5 - 4x5)

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	Cat. #9258	Back Complete - Graflex (4x5 - 4x5) (with Ektalite & hood)	Ref
	Cat. #9268	. Back Assembly - Graflex (4x5 - 4x5)	1
10-1	62-1	. . Slide lock - Plateholder	1
-2	151B3-5	. . Screw - Slide lock, 5/16 in. lg., #3 RH, Brass, Chrome.	2
-3	26313	. . Strip - Plateholder	1
-4	152B1-4	. . Screw - Holder strip, 1/4 in. lg., #1 OH, Brass, Chrome.	5
-5	26312	. . Catch - Plate holder	1
-6	150B1-4	. . Screw - Holder catch, 1/4 in. lg., #1 FH, Brass, Ebonol	4
-7	31146-G1	. . Plate - Lock pin	4
-8	150-2-4	. . Screw - Lock plate, 1/4 in. lg., #2 FH, Steel, Black nickel.	8
-9	166	. . Pin - Slide lock centering, 1/4 in. lg., #20 RH, Brass, Chrome	1
-10	29962	. . Pad - Velvet	1
-11	26315	. . Frame Assembly - Back	1
	Cat. #9046	. Frame Assembly - Focusing (with hood & Ektalite)	1
	30934-G1	. Frame Assembly - Focusing (with hood, less Ektalite)	1
	30414-P1	. . Screen - Ground glass focusing	1
	31935-P1	. . Screen - Ektalite focusing	1
	30371-P1	. . Retainer - Focusing screen	2
	100-2-3	. . Screw - Retainer, 3/16 in. lg., #2-56 FH, Steel, Jetal	4
	30931-P1	. . Frame - Focusing (for use with ground glass)	1
	30931-P2	. . Frame - Focusing (for use with Ektalite)	1
	Cat. #9147	. . Hood Assembly - Complete	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME.

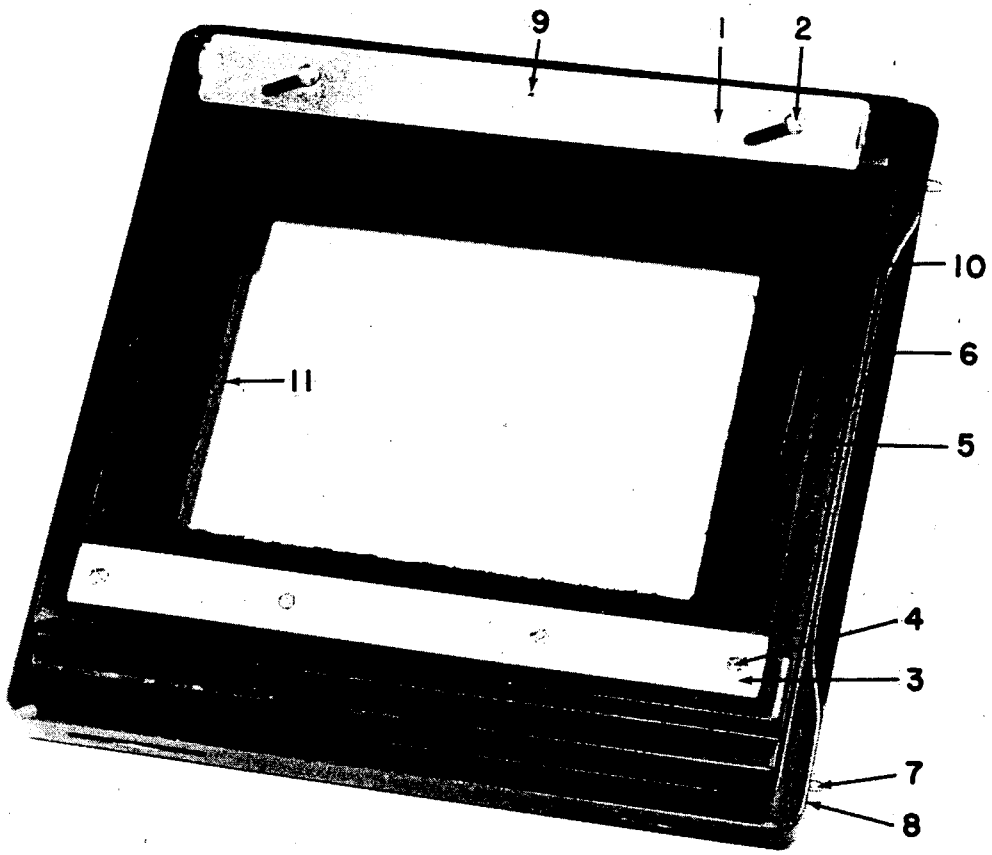


Figure 11. Graflex Back (4x5 - 3-1/4x4-1/4)

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
	Cat. #9259	Back Complete - Graflex (4x5 - 3-1/4x4-1/4) (with Ektalite & hood)	Ref
	Cat. #9269	. Back Assembly - Graflex (4x5 - 3-1/4x4-1/4)	1
11-1	62-1	. . Slide lock, Plate holder	1
-2	151B3-5	. . Screw - Slide lock, 5/16 in. lg., #3 RH, Brass, Chrome.	2
-3	22466	. . Strip - Plate holder	1
-4	152B1-4	. . Screw - Holder strip, 1/4 in. lg., #1 OH, Brass, Chrome.	4
-5	22467	. . Catch - Plate holder	1
-6	150B0-4	. . Screw– Holder catch, 1/4 in. lg., #0 FH, Brass, Ebonol	4
-7	31146-G1	. . Plate - Lock pin	4
-8	150-2-6	. . Screw - Lock plate, 3/8 in. lg., #2 FH, Steel, Black nickel.	8
-9	166	. . Pin - Slide lock centering, 1/4 in. lg., #20 RH, Brass, Chrome	1
-10	22463	. . Pad - Velvet	1
-11	22469	. . Frame Assembly - Back	1
	30934-G2	. Frame Assembly - Focusing (with hood, less Ektalite)	1
	Cat. #9045	. Frame Assembly - Focusing (with hood & Ektalite)	1
	30414-P3	. . Screen - Ground glass focusing.	1
	30414-P4	. . Screen - Ektalite focusing	1
	30371-P1	. . Retainer - Focusing screen	2
	100-2-3	. . Screw - Retainer, 3/16 in. lg., #2-56 FH, Steel, Jetal,	4
	30932-P1	. . Frame - Focusing (for use with ground glass)	1
	30932-P2	. . Frame - Focusing (for use with Ektalite)	1
	Cat. #9146	. . Hood Assembly - Complete	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME. State quantity.

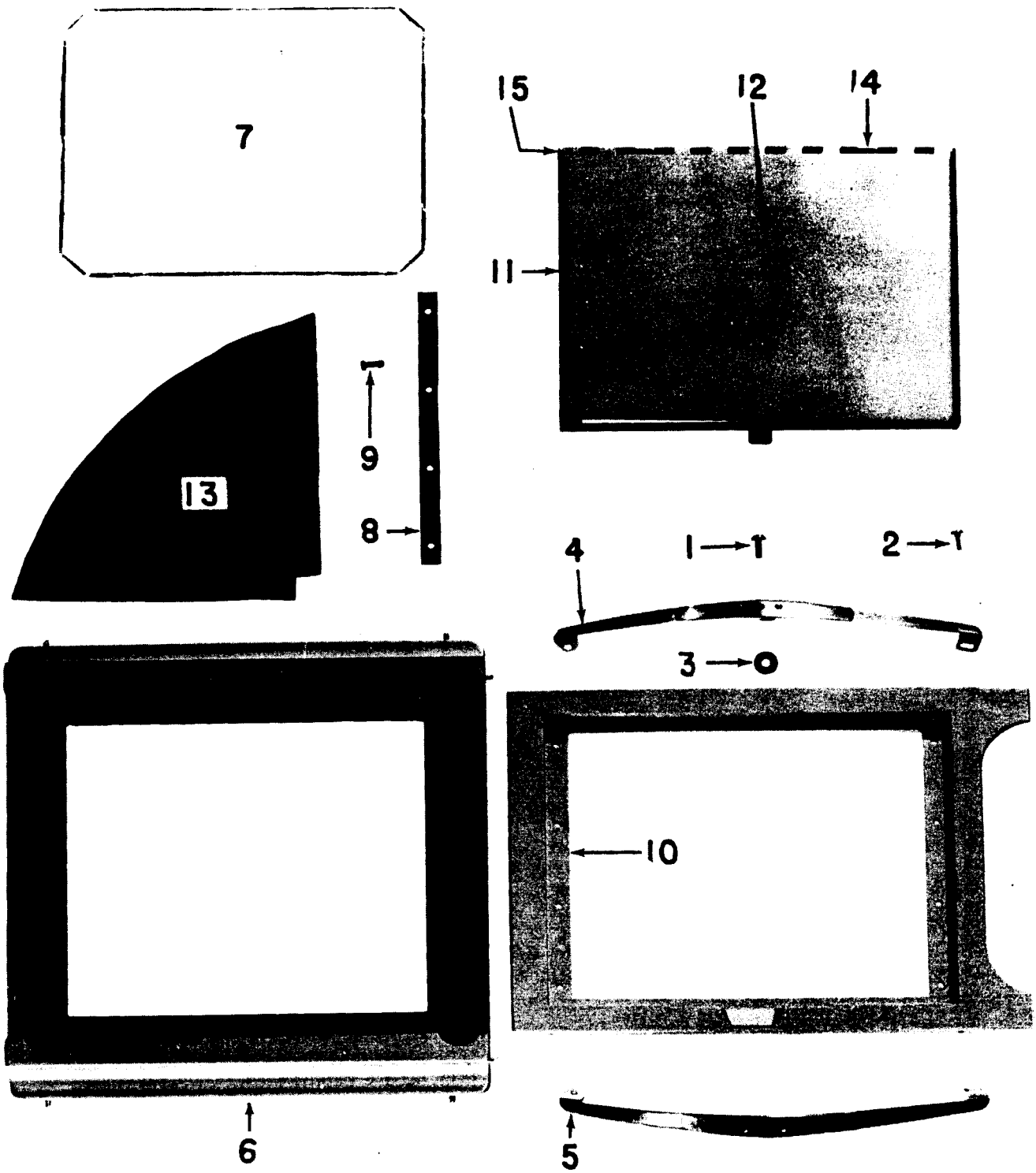


Figure 12. Graphic Back Complete (4x5 - 4x5)

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.	
		Back Complete - Graphic (4x5 - 4x5) (old style)	NP	Replaced by
	31764-G1	Back Complete - Graphic (4x5 - 4x5) (new style) (less Ektalite)	NP	Graflok
	31764-G2	Back Complete - Graphic (4x5 - 4x5) (new style) (with Ektalite)	NP	Back
12-1	102B4-4	. Screw - Panel spring, center, 1/4 in. lg., #4-40 RH, Brass.	2	
-2	25651	. Screw - Panel spring, end	4	
-3	30473-P27	. Washer - Panel spring, 0.322 in. OD x 0.012 in. ID x 0.072 in. thk Brass	2	
-4	25718	. Spring Assembly - Panel, top	1	
-5	25719	. Spring Assembly - Panel, bottom	1	
-6	25665-G1	. Back Assembly - First	1	
	25664	. Frame Complete - Focusing (old style)	1	
	30405-G7	. Frame Complete - Focusing (new style) (less Ektalite)	1	
	30405-G9	. Frame Complete - Focusing (new style) (with Ektalite)	1	
-7	25652	. . Screen - Ground glass focusing (old style)	1	
	30414-P1	. . Screen - Ground glass focusing (new style)	1	
	31935-P1	. . Screen - Ektalite focusing (new style, use with Frame #30411-P3 only)	1	
-8	25622	. . Retainer - Focusing screen (old style)	2	
	30371-P1	. . Retainer - Focusing screen - (new style)	2	
-9	106-2-4	. . Screw - Retainer (old style), 1/4 in. lg., #2-56 Fil H, Steel	8	
	100-2-3	. . Screw - Retainer (new style), 3/16 in. lg., #2-56 FH, Steel.	4	
-10	25632	. . Frame - Focusing (old style)	1	
	30411-P2	. . Frame - Focusing (new style, for ground glass only)	1	
	30411-P3	. . Frame - Focusing (new style, for use with Ektalite).	1	
-11	25661	. . Door - Liner and panel (old style)	1	
-12	25660	. . . Door - Panel	1	
-13	25650	. . . Shield - Side, focusing panel	2	
-14	845	. . . Spring - Panel door	1	
-15	25649	. . . Pin - Hinge	1	
	25623	. . . Liner - Focusing panel	1	
	Cat. #9262	. Hood Assembly Complete (new style)	1	

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME.
State quantity.

NP - Non Procurable

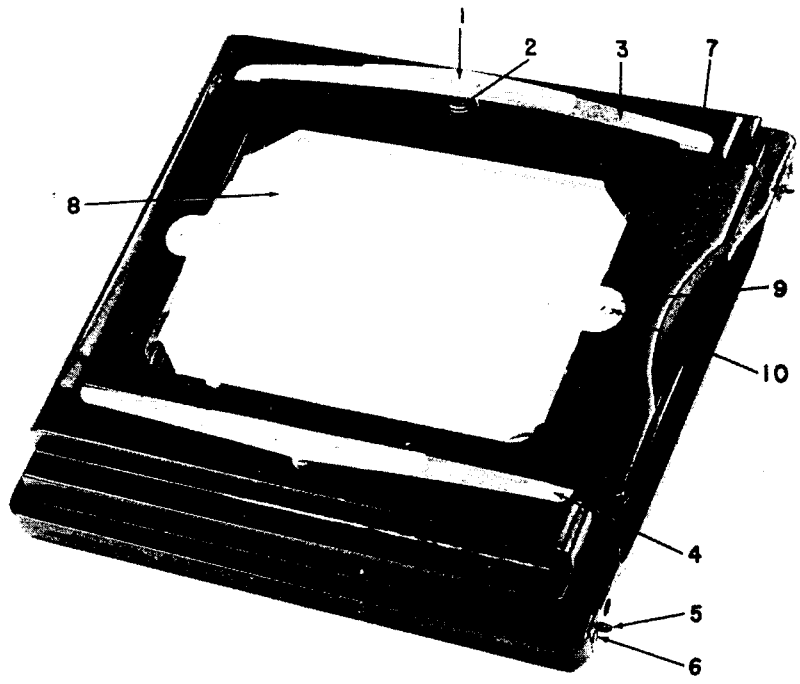


Figure 13. Graphic Back (4x5 - 3-1/4x4-1/4)

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
		Back Complete - Graphic (4x5 - 3-1/4x4-1/4) (old style)	NP
	22394-G1	Back Complete - Graphic (4x5 - 3-1/4x4-1/4) (new style) (less Ektalite)	NP
	Cat. #9257	Back Complete - Graphic (4x5 - 3-1/4x4-1/4) (new style) (with Ektalite)	1
13-1	151B3-6	. Screw - Panel spring, center, 3/8 in. lg., #3 RH, Brass, Chrome	2
-2	30473-P27	. Washer - Panel spring, 0.322 in. OD x 0.120 in. ID x 0.072 in. thk Brass, Chrome	2
	30473-P1	. Washer - Panel spring, end (new style), 0.156 in. OD x 0.067 in. ID x 0.005 in. thk Brass, Ebonol	2
-3	22390	. Spring Assembly - Top (old style)	1
	30415-G7	. Spring Assembly - Top (new style)	1
-4	22391	. Spring Assembly - Bottom (old style)	1
	30415-G8	. Spring Assembly - Bottom (new style)	1
-5	31146-G1	. Plate - Lock pin	4
-6	150-2-6	. Screw - Lock pin plate, 3/8 in. lg., #2 FH, Steel, Nickel	8
	22388-G1	. Frame Assembly - Back	NP
	22392	. Frame Assembly - Focusing (old style)	1
	30405-G6	. Frame Assembly - Focusing (new style) (less Ektalite)	1
	30405-G8	. Frame Assembly - Focusing (new style) (with Ektalite)	1
-7	151B1-6	. . Screw - Panel spring, 3/8 in. lg., #1 RH, Brass	4
	30474	. . Pin - Panel spring (new style, left side)	2
	31248	. . Pin - Panel spring (new style, right side)	2
	30473-P1	. . Washer - Pin, 0.156 in. OD x 0.067 in. ID x 0.005 in. thk. Brass, Ebonol (new style)	2
-8	3106	. . Screen - Ground glass focusing (old style)	1
	30414-P3	. . Screen - Ground glass focusing (new style)	1
	30414-P4	. . Screen - Ektalite focusing (new style)	1
-9	5056	. . Retainer - Focusing screen (old style)	2
	30371-P1	. . Retainer - Focusing screen (new style)	2

Figure and Index No.	Part Number	Nomenclature 1 2 3 4 5	Qty.
13-10	151B2-4	. . Screw - Retainer, 1/4 in. lg., #2 RH, Brass (old style) . . .	2
	100-2-3	. . Screw - Retainer, 3/16 in. lg., #2-56 FH, Steel, Jetal (new style)	4
	22389	. . Frame Assembly - Focusing (old style)	1
	30412-P1	. . Frame - Focusing (new style, for use with ground glass) . .	1
	30412-P2	. . Frame - Focusing (new style, for use with Ektalite).	1
	Cat. #9146	. Hood Assembly Complete (new style)	1

DO NOT ORDER PARTS BY FIGURE INDEX NUMBER. SPECIFY CATALOG OR PART NUMBER AND NAME.
State quantity.